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ABSTRACT

The purpose of the study is to help fill the present gap in our knowledge of the internal labor market, and particularly of the internal mobility patterns of low income workers. Through the analysis of data from two samples, one drawn from New York City and the other from the entire nation, the document explores the determinants of worker "attachment" and the patterns and degree of upward mobility. The document includes a summary of the literature on internal mobility and related questions, discusses the data used (derived from the Continuous Work History Sample of the Social Security Administration), presents findings on the attachment and advancement patterns of low-income workers, and analyzes mobility patterns in three New York City industries (banking, general merchandising stores, and apparel manufacturing). Major findings are summarized in terms of attachment patterns as related to sex, race, and age and advancement patterns. Findings noted as significant were the high degree of firm and industry attachment exhibited by females, particularly in the garment industry, and the success of males in raising their incomes. Implications for manpower policy, and suggested directions for further research conclude the document. Appended is a four-page bibliography. (Author/BP)

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UPWARD MOBILITY OF LOW-INCOME WORKERS

EDWARD STEINBERG, Ph.D.

A Research Report to the U.S. Depart nent of Labor

From

The Institute of Public Administration

New York, New York

July, 1973

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UPWARD MOBILITY OF LOW-INCOME WORKERS

by Edward Steinberg

A research report of the Training Incentive Payments Program, a research and development project sponsored by the Manpower Administration, U.S. Department of Labor. Viewpoints or opinions stated in this report do not necessarily represent the official position or policy of the U.S. Department of Labor.

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TRAINING INCENTIVE PAYMENTS PROGRAM

The TRAINING INCENTIVE PAYMENTS PROGRAM (TIPP) is a research and development project sponsored by the Manpower Administration, U.S Department of Labor (Contract No. 82-34-69-44) Its purpose is to work with employers to develop incentives that will result in the upgrading of the skills and/or economic levels of low-income workers they employ. In that capacity, the TIPP staff is exploring the effect that financial incentives and technical assistance will have on the upgrading process in a variety of settings Technical assistance includes training, manpower analyses in the client companies, the designing and implementation of programs, the development of performance review systems, and the institution of cost- benefit accounting systems

FOREWORD

The research on which this study is based was performed as part of the work of the Training Incentive Payments Program (TIPP). We have been exploring various aspects of what has come to be called the "internal labor market" in an effort to understand the barriers which limit or may prevent altogether the upward mobility of low-income workers. Our work seeks to maintain a balance between specific activities with individual employers and a more general analytical approach which would enable us to relate these activities to the body of research which deals with upward mobility as an aspect of manpower research and policy. This report deals with the theoretical-analytical side. Its author, Dr. Edward Steinberg, has served as Research Director of TIPP since July 1, 1971. The contents of this report represent a major share of his activities since that time.

In our progress report to the Department of Labor dated July 1, 1972, we reported some of the findings which are set forth in fuller detail here. A study of the long-term experience of low-income workers makes it possible to analyze the degree of upward mobility, measured by income, which they have experienced in different industries. Low-income workers are both white and non-white, male and female. Accordingly, we wished to know the similarities and differences in upward mobility by race and sex. We also wished to know whether the experience of low-income workers varies significantly as a function of their decision to remain with one employer, or within an industry, or to seek employment in other industries. Historically

and theoretically, manpower policies have stressed the role of mobility as a positive force of benefit both to the economy and the workers. It appeared to us important to ascertain the degree to which the experience of workers at, or close to, the bottom of the spectrum of incomes and occupations in urban labor markets provides support for, or tends to contradict, this assumption.

The internal labor market is a concept which requires further clarification and specificity if exploration is to yield useful policy insights. In terms of mobility, it can refer to events and structures within a single firm or employer, in contrast to movement between firms, but this scheme is too simple; when firms are relatively small, close together, and similar in occupational patterns, such a group may together constitute a labor market, and may show more characteristics in common with the idea of an internal labor market than the external or regular labor market. When workers show strong attachment to an industry or sub-section of an industry, manpower policies may be fruitfully addressed to this reality.

These and other questions remain to be explored further. Dr. Steinberg's work has clarified some of them and moved the overal discussion forward. He has also provided important original information on the least fortunate and equipped members of the labor force, those whose future mobility provides the focus and rationale for our work. His findings show that many low-income workers remain attached to one firm or industry over long periods of time; even when this attachment does not yield income increases of any significance, workers at this level lack the skills, the means, the risk-taking capacity to seek alternatives. Workers who leave a firm or industry often experience drops in earnings, not increases, which suggests that this kind of mobility

is often involuntary. The variations in experience among men and women, whites and blacks is also of interest and importance, but the differences speak less eloquently than do the similarities, among the low-income workers whose experience Dr. Steinberg studied. It is difficult to avoid the conclusion that the substantial manpower expenditures of the past decade have not yet provided major benefits to the working poor who remained employed by one employer or within the same industry. We hope that future work will provide new and better tools for improving the effectiveness of manpower policies.

Sumner M. Rosen, Director
Training Incentive Payments Program

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Several people outside the Institute of Public Administration were of invaluable assistance to me in the preparation of this study. Professor Daniel Diamond of New York University was a source of guidance and encouragement at every step of the way, and the paper has benefited immeasurably from his comments on earlier drafts. Dr. Thomas M. Stanback, Jr. of N.Y.U. made a number of recommendations which led to critical improvements in Chapters IV and V. I am extremely grateful, too, for the advice of Dr. Charles Brecher of Conservation of Human Resources at Columbia University. Dr. Brecher first suggested that I undertake the study, and he also provided valuable criticism of earlier drafts. Mr. David Hirschberg, formerly of the Office of Business Economics of the U.S. Department of Commerce, provided me with the data in a usable form. Finally, I am indebted to Mr. David Jacobowitz of N.Y.U., who performed the necessary computer programming.

Edward Steinberg
June, 1973

SUMMARY

This study analyzes the firm-and industry-attachment patterns, and the upward-mobility patterns, of low-income workers between 1965 and 1970. The data employed are derived from the one-percent Continuous Work History File of the Social Security Administration, and consist of matrices showing the 1970 distribution of incomes by 1965 income class for workers who were employed in both years. The focus is on workers earning between $3000 and $5000 in 1965, and the analysis is conducted on two samples, one drawn from workers employed in New York City, and the other from the entire nation.

Analysis of the "attachment" patterns of low-income workers by demographic group yields several interesting findings. Especially significant is the high degree of firm and industry attachment exhibited by females. More than 53% of the low-income females in both the New York and national samples were "firm stayers" over the period; the corresponding figures for males were 41.7% in New York, and 38.5% in the nation As expected, "attachment" was found to increase with increasing age. Not only did older workers show higher firm-attachment rates than younger workers, but among firm switchers, older workers were more likely to remain in the same industry than were younger workers.

Setting an "advancement" standard of an upward move of two $1000 income classes over the period, the study analyzes the upward-mobility patterns of low-income workers by demographic group. Overall, the advancement rates were about equal for firm stayers and leavers, reflecting the mixed effects of voluntary and involuntary movement. However, while black firm stayers were

as successful in advancing as were white firm stayers, black firm switchers fared somewhat worse than did white firm switchers; this finding suggests a greater incidence of involuntary movement among blacks. Male firm stayers were found to be far more successful in raising their incomes than were female stayers; 60.1% of the male firm stayers in the New York sample and 64.5% of those in the national sample "advanced," compared to only 55.9% of the New York female firm stayers, and 46.9% of those in the national sample. "Internal" upward mobility was also found to decrease with increasing age.

The study employs regression analysis to test the effects of several variables on the attachment of low-income workers to manufacturing industries, and on their intraindustry upward mobility. Among the hypotheses tested are:

(a) that employment growth in an industry generates greater worker attachment to the industry and greater upward mobility within the industry;

(b) that workers show greater attachment to industries characterized by large firm size, and that upward mobility is more common in such industries;

(c) that industries characterized by higher wage levels will show greater degrees of worker attachment and advancement than lower-wage industries.

An additional hypothesis tested is that the degree of firm and industry attachment is influenced by the prospects for advancement; the assumption here is that larger proportions of low-income workers will remain in those industries in which low-income workers are more successful in raising their incomes.

A final portion of the study focuses on the attachment and advancement patterns of workers at all income levels in three industries in New York City--banking, general merchandise stores, and apparel manufacturing. Advancement was found to be far more common in banking than in either of the other two industries. Perhaps the most interesting finding was the extremely high degree of female attachment to the garment industry, despite the very limited ability of females to rise within the industry

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CHAPTER I

INTRODUCTION

The Internal Labor Market

In the last several years, after a lengthy period of virtual neglect, the subject of the internal labor market has become one of prime importance to labor economists. As defined in a basic work on the subject, the internal labor market consists of "an administrative unit, such as a manufacturing plant, within which the pricing and allocation of labor is governed by a set of administrative rules and procedures." The internal labor market is thus distinguished from the external labor market, in which "pricing, allocating, and training decisions are controlled directly by economic variables." The two markets are connected only at certain job classifications which are designated as "points of entry" to the internal market. "The remainder of the jobs within the internal market are filled by the promotion or transfer of workers who have already gained entry."[1]

A more recent work broadens the definition of the internal labor market to focus on the industry, rather than the individual plant or firm, as the relevant unit for purposes of internal labor market analysis. Under this definition,

> rules for allocating labor within the internal labor market are no longer set exclusively by administrative regulations, but are established by custom and practice in the industry as well. Ports of entry may be defined as positions open to those without prior experience in the industry, regardless of whether this experience is with

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[1] Peter B. Doeringer and Michael J. Piore, Internal Labor Markets and Manpower Analysis (Lexington, Mass.: D.C. Heath, 1971), pp. 1-2.

> the particular firm. In this context, the firm, or the traditional internal labor market, is only one setting within which upgrading may take place. Workers may also advance by changing employers.[2]

While recent literature on the internal labor market presents a useful theoretical construct, it does not provide an analysis of the process of internal labor mobility. Factors such as the extent of internal mobility and the equality of access to the choice positions within the internal market are left unexplained.

Scope of the Study

The purpose of the current study is to help fill the present gap in our knowledge of the internal labor market, and particularly of the internal mobility patterns of low-income workers. Utilizing data from the Continuous Work History Sample of the Social Security Administration, we shall investigate several dimensions of internal labor market behavior. Through analysis of data from two samples, one drawn from New York City and the other from the entire nation, we explore the determinants of worker "attachment" to an internal labor market and of the degree of upward mobility observed within the internal labor market.

The first question analyzed is the degree of firm and industry attachment of low-income workers. What proportion of the workers earning between $3,000 and $5,000 in 1965 were still employed by the same firm in 1970? What percent were still in the same industry, but with a different employer? We investigate, too, the degree of firm and industry attachment demonstrated by different race, sex, race-sex, and age groups within the population.

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[2] Charles Brecher, Upgrading Blue Collar and Service Workers (Baltimore: Johns Hopkins University Press, 1972), p.5.

Discussion of these attachment patterns will help clarify the issue of whether the firm or the industry is the proper unit of analysis for studying the internal labor market.

Another area of focus is on the degree of advancement achieved by firm and industry stayers. What percent of the low-income firm and industry stayers enjoyed significant gains in income between 1965 and 1970? Are stayers more or less successful in realizing income gains than are industry leavers? Again, the data are analyzed for the various demographic groups in the workforce; do some industries provide upward mobility for certain groups--whites and males, for example--but not for others?

The next step is an analysis of the effects of several variables on internal labor market attachment and on the internal mobility of low-income workers:

(a) employment growth--we test the hypotheses that workers show greater attachment to growing industries, and that fast-growing industries provide greater upward mobility opportunities for low-income workers than do industries where employment is growing more slowly, or not at all;

(b) firm size--we test the hypotheses that industries characterized by large firm size will generate both greater worker attachment and a greater degree of upward mobility;

(c) wage level--we analyze the effect of the wage level in an industry on the degree of attachment and advancement shown by workers in the industry.

An additional hypothesis tested is that the degree of firm and industry attachment is influenced by prospects for advancement. Do workers exhibit a strong attachment to those industries in which stayers experience a good deal of upward mobility? Conversely, is these weak worker attachment to industries in which stayers tend not to advance?

Discussion of this latter point will contribute to the development of the marginal productivity of labor theory. Traditional theory maintains that labor mobility will eliminate wage differentials for similar jobs, and assumes that workers "maximize" by moving from low-paying to better-paying jobs. Many theorists have qualified this assumption, pointing out that in deciding whether or not to change jobs, workers take into account a host of factors other than current wage rates. Simon Rottenberg, for example, has written, "Choice is not made by workers in terms of instantaneous earnings differences, and it was not understood by the economists that it would be." Rather, "The worker who makes a job choice must be thought to calculate net advantage in long-run rather than instantaneous terms."[3] Many writers have tested the marginal productivity theory's assumption of rational worker behavior by analyzing the effect of job change on pre- and post-change earnings. These studies, in effect, have assumed that workers make their decisions on the basis of instantaneous considerations. However, as Peter Doeringer and Michael Piore have pointed out in their analysis of the internal labor market, a job switch leading to a lower current income may be entirely rational:

> The comments of workers and union officials suggest that the members of the labor force place a positive value upon internal markets. To the extent that they do so, they should be willing to sacrifice earnings to acquire and retain employment in such markets...
>
> The benefits which workers receive from internal labor markets appear to derive primarily from enhanced job security and chances of advancement available within them. Wage sacrifices necessary to attain access to an internal labor market

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[3] Simon Rottenberg, "On Choice in Labor Markets," Industrial and Labor Relations Review, Vol. IX (January, 1956), p. 196.

> represent a trade-off between present and future income. As such, they should be responsive to such variables as the time horizon of the labor force and the rate of discount between present and future income, increasing as the former expands and the latter declines.[4]

This study will focus on the effect of a firm or industry's potential for upward mobility as a criterion for workers' attachment-or-exit decisions. By doing so, we add a necessary time dimension to the empirical literature on the validity of the marginal productivity theory.

An additional portion of the research provides an in-depth analysis of the upward mobility patterns of workers at all income levels in three New York City industries-- apparel manufacturing, general merchandise stores, and banking. Among the specific questions explored are: What is the shape of the income distribution in each industry? What percent of the "better" jobs in each industry in 1970 were filled by workers who had been employed in the industry in 1965? What percent of the better jobs in each industry in 1970 were filled by new entrants to the industry--both from other industries within the city and from outside the city's work force? What is the relationship between the degree of firm and industry attachment of various demographic groups and the ability of these groups to advance within the industry?

Purpose

In addition to clarifying several current issues in internal labor market analysis, the study is designed to contribute to the understanding of the labor-market behavior of the "working poor," and of the labor-market problems faced by this group. A further purpose is to provide the

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[4] Doeringer and Piore, p. 28.

Manpower Administration of the United States Department of Labor with some useful information for its upgrading programs in general, and, in particular, for the Training Incentive Payments Program (TIPP), a demonstration project operating in New York City. For example, the issue of whether worker attachment is mainly to the firm or to the industry is crucial for the determination of the appropriate unit for the Labor Department to deal with in implementing an upgrading program. If worker attachment is chiefly to the company, then the Labor Department may deal with the individual firm. However, if attachment is to the industry, and not to the firm, then firms will be reluctant to train workers whom they may then lose to competitors. In such a case, where the "social" gains exceed the private gains, the government may have to "socialize" the costs and deal with consortia of firms.

Internal Labor Market Analysis: The State of the Art

As mentioned earlier, the issue of internal mobility has only recently become a major concern of labor economists. Earlier neglect of the subject did not stem from ecomomists' failure to appreciate the importance of internal mobility as an avenue of advancement for workers. Indeed, in a seminal work in labor market analysis, Lloyd Reynolds observed:

> ...workers have a strong preference for staying on with the same company. When they think of advancement, therefore, they tend to think of opportunities within the establishment where they are presently employed. Moreover, the bulk of actual upward movement is intraplant movement. A change of employers typically means retrogression in the occupational scale.[5]

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[5] Lloyd G. Reynolds, The Structure of Labor Markets (New York: Harper, 1951), p.139.

Other writers, too, have acknowledged the value of studying internal mobility. In the mid 1960's, H.M. Gitelman wrote:

> It would be surprising...if there were not considerable intellectual returns from focusing our attention upon the two most prevalent characteristics of labor mobility, namely, job changes within firms and the relative reluctance of workers to be mobile between firms.[6]

But despite their recognition of the importance of internal mobility, economists have paid little attention to the subject. There seem to be two chief reasons for this neglect. First, research on internal mobility has been a tedious and time-consuming process, and the prospects of attaining "generalizable" results have appeared uncertain; cost-benefit considerations have therefore dictated alternative uses of the scarce resource of economists' time. Second, because of the premium which economists place on efficient allocation of resources, they have been more concerned with geographic and interindustry mobility, which are the more obvious and dramatic processes by which labor moves from less productive to more productive uses.

However, economists can no longer be concerned exclusively with the question of whether the labor market promotes an efficient allocation of human resources. A related issue, dealing with the distribution of income which results from the allocation decisions of the labor market, has belatedly begun to receive attention: to what extent do various groups in society share in access to the "better" jobs which the economy provides. As stated in the 1971 Manpower Report of the President:

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[6] H.M. Gitelman, "Occupational Mobility Within the Firm," Industrial and Labor Relations Review, Vol. XX (October, 1966), p.65.

> Large numbers of slum residents, many of them members of minority groups, see no escape route from poverty...All too often, the only legal jobs open to them offer merely poverty-level earnings. The need for jobs which provide a chance for upward mobility for those who have long been at the end of the job queue can hardly be overrated.[7]

This concern for providing jobs which afford upward mobility has stimulated government investment in upgrading programs for disadvantaged workers. These upgrading programs have, in turn, spurred interest in the question of internal mobility; the Labor Department's upgrading efforts depend for their success on information which will better enable the Department "to target differing approaches to particular industries, occupations, and classes of workers."[8] Meanwhile, designers and administrators of upgrading programs continue to suffer because of the lack of empirical evidence on patterns of internal mobility. As Marcia Freedman has written:

> In the last several decades, public policy has been addressed to the problems of income maintenance and expansion of social security, but the influences and effects of organizational attachment have not received adequate consideration in the programs developed for solving these problems.[9]

Design of the Study

In discussing the reasons for the lack of research on internal mobility, Gitelman has observed, "Of necessity, the study of intrafirm mobility must

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[7] Manpower Report of the President, April, 1971, p. 108.

[8] Ibid., p. 52.

[9] Marcia Freedman, The Process of Work Establishment (New York: Columbia University Press, 1970), p.119.

be undertaken on a case-by-case basis."[10] Happily, the availability of the Social Security Work History file on which this study is based renders Gitelman's statement obsolete. This file contains information on the earnings of randomly selected individuals over a period of years, and also identifies the industry in which the worker was employed in each year, and the employee's age, race, and sex. These data thus facilitate systematic, wide-scale research on internal mobility.

The following chapter summarizes the literature on internal mobility and related questions. Chapter Three describes the data used in the study and analyzes the strengths and weaknesses of the data. Our findings on the attachment and advancement patterns of low-income workers are presented and discussed in Chapter Four; Chapter Five analyzes mobility patterns in the three New York City industries. The sixth, and concluding chapter summarizes the major findings, discusses their implications for manpower policy, and suggests directions for further research.

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10 Gitelman, p. 50.

CHAPTER II

A REVIEW OF THE LITERATURE

Summary

This chapter examines the literature on internal mobility and related questions. We review, first, writings on the origins of the internal labor market, and then the theoretical and empirical literature on mobility within the internal labor market. The next section reviews several analyses of worker attachment to the internal labor market. Included here is a discussion of the literature on the relationship between firm size and relative wage rates. While this question is not of direct concern, the theoretical analysis of the issue is applicable to two questions considered in Chapter Four--the relationship between firm size and the attachment and advancement patterns of low-income workers. The concluding section of the chapter focuses on studies of the effects of age, race, and sex on patterns of firm and industry attachment and of internal mobility.

Origins of the Internal Labor Market

According to Doeringer and Piore, internal labor markets are generated by three basic factors: skill specificity, on-the-job training, and custom. Skill specificity has a two-fold effect in generating internal labor markets:

> ...it encourages employers, rather than workers, to invest in training; once the investment has occurred, it leads employers to stabilize employment and reduce turnover so that they can capture the benefits of the training.[11]

On-the-job training "permits skill specificity to increase inasmuch as

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[11] Peter B. Doeringer and Michael J. Piore, Internal Labor Markets and Manpower Analysis (Lexington, Mass.: D.C. Heath, 1971), p. 39.

the need to codify or standardize the training process is not a constraint upon the evolution of job content."[12] Custom, "an unwritten set of rules based largely upon past practice or precedent,"[13] centers around wage determination and the allocation of labor within the internal labor market.

> This accounts for much of the long-term stability in the wage and allocative structures of internal labor markets and is an important influence in the maintenance of internal labor markets over time.[14]

Interestingly, a recent empirical study by Arthur J. Alexander negates the hypothesis that skill specificity generates internal, or structured labor markets.[15] Alexander analyzed a Social Security data base consisting of more than 16,000 males, twenty to sixty years old in 1965, with income from one employer in the first quarter of 1965 exceeding $500. These workers were employed in 136 different industries. Alexander classified the industries as either manorial, guild, or open, depending on the proportions of workers in each industry who remained with the same employer or with the same industry between the first quarter of 1965 and the first quarter of 1966;

> Manorial industries were defined as those with firm stability over 85 percent; guild industries were those with industry stability minus firm stability over 5 percent; and the remaining industries were defined as open or unstructured.[16]

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12 Ibid.

13 Ibid., p. 23.

14 Ibid., p. 40.

15 Arthur J. Alexander, Structure, Income and Race: A Study in Internal Labor Markets (Santa Monica: Rand Corporation, October, 1970).

16 Ibid., p. 11.

Alexander found that stability (or structure) is a function of both industrial concentration (as measured by the four-firm concentration ratio) and technology (as measured by investment per employee). However, on the basis of regression analysis expressing worker income as a function of several variables, including age, years of experience within the firm, and years of experience within the industry (but outside the firm), Alexander concluded that the

> hypothesis relating structure to firm-specific training is not supported by the regression results. The impact of experience within the firm compared to outside experience is not greater in manorial industries. In fact, experience of any kind--firm, industry, or general (as partly measured by age)--is not especially important in manorial industries.[17]

The effects of the two other factors cited by Doeringer and Piore--custom and on-the-job training--have not been subjected to similar statistical tests.

Mobility in the Internal Labor Market

An early writer on the determinants of mobility within the internal labor market was Lloyd Reynolds. In The Structure of Labor Markets, Reynolds wrote:

> The growing practice of in-plant promotion might be taken into account through the concept of an "inside market," in which workers already in a plant compete for desirable vacancies...Insofar as internal recruitment prevails, then, it is probably better to abandon market concepts and to think in terms of status and hierarchy.[18]

Perhaps because of his unfortunate choice of the term "inside market" instead

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17 Ibid., p. 22.

18 Lloyd G. Reynolds, The Structure of Labor Markets (New York: Harper, 1951), p. 45.

of the more catchy "internal labor market," Reynolds has received little recognition for his contributions to the development of the concept. Nevertheless, Reynolds' work contains much of the basic theory of internal mobility.

Reynolds' analysis of intrafirm mobility relates specifically to manufacturing plants, and he cautioned against applying his conclusions to other industries.[19] He identified four major factors which determine the extent of intraplant mobility:

(a) the production setup, which determines the kinds of jobs to be done;

(b) employer policies regarding the filling of vacant jobs, i.e., the tendency to promote from within rather than hiring from outside the firm; also important is the bahavior of total employment, both in the company and in the local area;

(c) the attitudes of workers toward movement from one job to another;

(d) union contract provisions governing promotions and transfers.

In his discussion of the importance of the "production setup," Reynolds disputed the common notions that the jobs in a manufacturing plant form a continuous hierarchy from totally unskilled to highly skilled, and that there is vertical mobility all the way from the bottom of this hierarchy to the top. According to Reynolds, the workforce in a manufacturing plant is typically divided into three categories: skilled maintenance workers, production workers, and unskilled workers, such as sweepers. "There is little vertical movement from one of these categories to the next,"[20] and existing upward

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[19] The following discussion is based on Reynolds, pp. 140-154.

[20] Reynolds, p. 140.

occupational movement is greatest within the range of production jobs. The extent of this range depends on several factors, including the variety of products manufactured, the frequency of changes in type and quantity of output, and the processes employed in making a particular product (i.e., whether the range of skills required is narrow or wide).

Reynolds wrote further:

> ...promotion from within is now the general rule and is increasing over the course of time. Working in this direction are the growth of centralized employment departments strong enough to control foremen's actions, the increasing belief of employers that internal promotion is proper policy, the increasing reluctance of workers to change employers, and the extension of collective bargaining.[21]

However, on the basis of his empirical analysis of internal mobility, Reynolds concluded:

> ...only a minority of workers are able to move a significant distance up the occupational ladder via intraplant promotions. The main reasons for this have already been discussed. The narrow range of production jobs in many plants leaves little opportunity for advancement. The skilled maintenance and repair jobs are typically walled off from the production jobs by training requirements. Workers are frequently reluctant to change jobs even where vacancies are available. Where there is no union, foremen frequently prefer to hire from the outside rather than move an experienced man from his present job and create a second vacancy.[22]

One of the few empirical studies designed to test Reynolds' assumptions regarding internal mobility was published by H.M. Gitelman fifteen years after the appearance of Reynolds' book. Gitelman examined occupational mobility in the Waltham Watch Company of Waltham, Massachusetts from 1860 to 1890.[23] Gitelman's emphasis differs from that of Reynolds in two major

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21 Ibid., p. 148.

22 Ibid., p. 151.

23 H.M. Gitelman, "Occupational Mobility Within the Firm," Industrial and Labor Relations Review, Vol. XX (October, 1966), pp. 50-65.

respects. According to Gitelman, the rate of employment growth does not appear to have a strong influence on the rate of intrafirm mobility. "Perhaps the best inference which may be drawn is that the direction of employment change, i.e., whether employment increases or decreases, is more relevant to mobility than the magnitude of the change."[24] Secondly, unlike Reynolds, who viewed management attitudes toward internal promotion as a basic determinant of the level of intrafirm mobility, Gitelman sees these attitudes as a dependent, not an independent variable. Management attitudes, according to Gitelman, are shaped by such factors as labor market conditions, the composition of output, and the technology employed.

> For example, under tight labor market conditions, an internal promotion can be made at the going rate of the newly occupied slot within the firm; whereas to fill the vacancy from the external labor market would require the payment of the going rate there, which may be higher.[25]

The Importance of Occupational Structure

Several recent studies have stressed the importance of occupational structure in determining the amount of mobility possible in the internal labor market. Among these works is a study by Marcia Freedman of the career patterms of young (below the age of 31) male non-college-graduates in five large firms in a large metropolitan labor market--two department stores, two utilities, and an auto assembly plant.[26] After analyzing data from the

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[24] Ibid., p. 58.

[25] Ibid., p. 60.

[26] Marcia Freedman, The Process of Work Establishment (New York: Columbia University Press, 1970).

firms' personnel records, Freedman concluded, "Where the internal labor market was highly structured and closed except at the entry level, length of service with the company and the number of moves within the firm were the prime explanatory variables of wage rates." Furthermore, "In none of the firms was prior education and training a major determinant."[27] On the question of the determinants of the degree of advancement opportunity within a firm, Freedman wrote,"...once a worker is hired, his position and prospects are largely determined by company structure." Company structure, in turn, is influenced chiefly by the "technical level and basic tasks necessary for continued operation," by collective bargaining, and by managerial style.[28]

The significance of a company's occupational structure in determining the potential for workers' upward mobility has received due recognition, too, in a study of employee advancement in eleven major industries. This study, by E.F. Shelley and Company, deals with upgrading potentials for non-supervisory workers in the following industries: motor vehicles and parts, basic steel, rubber tires, apparel, printing, air transportation, telephone communications, department and variety stores, commercial banking, insurance, and hotels and motels.[29]

The emphasis of the Shelley report is on the importance of the shape of the occupational "pyramid" in each industry, and on the manner in which

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27 Ibid., p. 82

28 Ibid., p. 110

29 William J. Grinker, Donald D. Cooke, and Arthur W. Kirsch, Climbing the Job Ladder: A Study of Employee Advancement in Eleven Industries (New York: E.F. Shelley and Co., 1970).

the range of skill requirements affects the potential for upgrading. Thus, steelmaking provides significant opportunities for upward movement because the industry

> requires a wide range of skills which can be aligned from a laboring entry level position up through a highly skilled position at the other end, and with an equitable distribution of intermediate jobs which would prepare the worker for the position immediately ahead.[30]

In contrast, the occupational structures of other industries were found much less conducive to upward mobility. In industries such as motor vehicles and apparel, tasks are

> ...simplified to the point that almost anyone, once trained, can perform the tasks of other employees throughout the facility. Ironically the greater the skill transferability of one job for another and the greater capability the employee has to move to another section of the operation, the less is his upgrading opportunity.[31]

On the basis of its observations, the Shelley group concluded that slightly more than one-third of the non-supervisory workers in the industries studied are in "dead-end" jobs. These are positions

> which allow a minimum opportunity for the exercise of independent judgment and which do not provide a reasonable expectation of advancement either through formal or informal job-related training. Such jobs are always either unskilled or semi-skilled and usually pay relatively low wages.[32]

Another study highlighting the role of occupational structure in determining the extent of internal mobility is a recent book by Charles

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30 Ibid., p. 10.

31 Ibid., p. 12.

32 Ibid., p. 13.

Brecher, which concentrates on upward mobility in five major industries in New York City--apparel manufacturing, food service, health, construction, and local public transit.[33] Through analysis of Social Security data for the period between 1962 and 1966 for workers in four of these industries (local public transit employees are not covered by Social Security), Brecher focused on such questions as the degree of worker attachment to each industry, and the extent of opportunity for low-income workers to rise within each industry. Brecher reached three major conclusions concerning the observed level of upward mobility in each industry:

(a) an industry's occupational structure is the major determinant of the existence of advancement opportunity within the industry. Thus, upgrading opportunities are necessarily limited in industries such as food service; according to the Social Security data, only ten percent of the workers in this industry in New York City were earning more than $6,000 in 1966.[34]

(b) regardless of an industry's occupational structure, intraindustry upward mobility is the prime means through which the better-paying positions are filled.

> ...between 73 percent and 80 percent of all workers earning $8,000 or more per year had at least four years experience in their respective industries and most of this group had moved up from positions paying substantially less during the four-year period.[35]

(c) formal training is only rarely a requirement for upward mobility.

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[33] Charles Brecher, Upgrading Blue Collar and Service Workers (Baltimore: Johns Hopkins University Press, 1972).

[34] Ibid., p. 35.

[35] Ibid., p. 94.

Other Evidence on Internal Mobility

Several other studies, while not directed primarily at questions of intrafirm and intraindustry mobility, do contain some findings regarding the extent of internal mobility. Thus, a study of interindustry labor mobility by Lowell Gallaway treats several questions which are related to the current study.[36] Using data from the one-percent Social Security file, Gallaway cross-classified workers' industry of major job (in terms of earnings) in 1957 by industry of major job in 1960. His classification is limited to ten broad industrial groupings: agriculture; mining; contract construction; durable goods manufacturing; nondurable goods manufacturing; transportation; communication and public utilities; wholesale and retail trade; finance, insurance, and real estate; services; and government.

Gallaway focused on the relative performances of industry stayers and movers during the period. He hypothesized that in the aggregate, industry stayers should have higher earnings than switchers, because there is stronger worker attachment to better-paying industries, and because within each industry, higher-income workers would be more likely to "stay" than would lower-income workers. Gallaway's finding was that for all industries except agriculture, the 1960 earnings of stayers exceeded those of leavers.[37]

Attachment to the Internal Labor Market and the Role of Firm Size

A concise statement of the basic theory of firm and industry attachment appears in a recent article by Terence J. Wales on quit rates in U.S. manufacturing industries:

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36 Lowell E. Gallaway, Interindustry Labor Mobility in the United States 1957 to 1960, U.S. Department of Health, Education, and Welfare, Social Security Administration, Office of Research and Statistics, Research Report No. 18 (Washington: U.S. Government Printing Office, 1967).

37 Ibid., p. 51.

> A number of factors will influence the individual's decision to quit his job. The most obvious of these are, on the positive side, the possibliity of obtaining higher wages elsewhere; and, on the negative side, the prospect of being unemployed while searching for a job, the loss of seniority and pension rights, and the social and psychological costs involved in changing jobs.[38]

Wales tested the effects of several variables on interindustry differences in quit rates. One major finding was that, "The decision to quit is influenced by a factor that reflects both the attractiveness of (in terms of wages), and the probability of being hired in, other industries".[39] An industry's wage rate and degree of unionization had negative effects on the quit rate. Industry quit rates were influenced, too, by the demographic composition of the workforce:

> An increase in the fraction of workers in the age bracket 18-24 years from 9 to 15 percent, for example, increases the quit rate (initially at 6) by one percentage point, whereas an increase in the fraction of female employees from 10 to 30 percent reduces the quit rate by one percentage point.[40]

Gallaway related the degree of attachment to each of his ten industrial groupings to the 1960 earnings level in the industry (as calculated from the Social Security data), and to the industry's 1960 unemployment rate. The assumption of rationality on the part of workers implies that high attachment should be associated with high earnings, since fewer workers should desire to leave high-income industries. There are two reasons to expect an inverse relationship between an industry's unemployment rate and its attachment rate.

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38 Terence J. Wales, "Quit Rates in Manufacturing Industries in the United States," Canadian Journal of Economics, Vol. III (February, 1970), p. 124.

39 Ibid., p. 136.

40 Ibid.

In the first place,

> unemployment in an industry should tend to create uncertainty in individuals' minds concerning future employment opportunities in that line of work. Assuming that workers are risk averters, this would serve to make the industry less attractive to them.[41]

Secondly, the Social Security data do not distinguish between voluntary and involuntary mobility, and a high unemployment rate in a particular industry means, very simply, that a relatively large number of workers were forced out of employment in the industry.

Gallaway tested his hypothesis relating attachment to earnings and unemployment levels by using data for male workers during the period from 1957 to 1960. Regression analysis showed both the level of earnings in an industry and the industry's unemployment rate to be significant in explaining attachment.

Two other recent studies of voluntary labor mobility reached conclusions similar to those of Wales.[42] These studies are particularly relevant because of their discussion of the effect of firm size on the quit rate. Stoikov and Raimon offer contradictory hypotheses on the relationship between firm size and voluntary mobility. On the one hand, "...the smaller the size of the unit, the less conflict is there between the role of the individual worker in the discharge of his job duties...and the worker's other roles in life".[43] Size of firm, therefore, should be positively correlated with

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41 Gallaway, p. 30.

42 Vladimir Stoikov and Robert L. Raimon, "Determinants of Differences in the Quit Rate among Industries," American Economic Review, Vol. LVIII (December, 1968), pp. 199-216.

43 Stoikov and Raimon, p. 1286.

voluntary mobility. On the other hand, there are several reasons to expect an inverse relationship between firm size and the quit rate. Of primary importance is the fact that in larger organizations the perceived desirability of leaving is lower, simply because the perceived possibliity of intra-organizational transfer is greater.[44] In their empirical analysis Stoikov and Raimon found size of establishment significant as a determinant of the quit rate in only one of the two years studied. In that year, the variable had a negative effect on voluntary mobility.[45]

Burton and Parker were more explicit in hypothesizing an inverse relationship between average firm size in an industry and the industry's quit rate. They reasoned that "...larger firms normally offer more chances for internal advancement of employees and thus reduce the necessity of quitting."[46] However, their empirical analysis revealed a positive correlation between firm size and voluntary mobility, a finding which, the authors admitted, "contradicts expectations".[47]

Significantly, these articles do not contain a theoretical statement of why upward mobility should be more common in large establishments than in smaller ones. However, we can gain some insight into the question through a brief review of the arguments advanced in the literature on the relationship between firm size and wage levels.

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44 Ibid., pp. 1286-1287.

45 Ibid., p. 1291.

46 Burton and Parker, p. 205.

47 Ibid., p. 213.

Several economists have explained why firms in less competitive industries are able to pay higher wages than those in more competitive industries.[48] Stanley Masters, however, has argued that the relationship between earnings and plant size is stronger than that between earnings and concentration. According to Masters:

> Plants of different sizes will normally set different standards for their workers. The large plants will want workers who are more dependable and more willing to be regimented, but less broadly skilled. If all firms could set wages unilaterally, then the average wage rate might be relatively high or low in the industries with the larger plants depending on the relative importance of these considerations. When unions are taken into account, there is a greater chance that the industries with the larger plants will have the higher wages.[49]

Richard Lester cited similar arguments to explain the observed phenomenon of higher wage levels in large firms. However, Lester reached the interesting conclusion that, "Size-of-establishment differentials in total compensation are too significant to disregard in wage theory, but they have yet to be satisfactorily treated in theoretical terms."[50]

Whatever the state of the understanding of the relationship between firm size and wage levels, the theory seems to provide only a minor contribution toward a theory relating firm size and advancement opportunity. Obviously, if earnings are higher in industries characterized by large firm size, then a low-income worker in such an industry can aspire to much higher earnings.

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48 See, for example, William R. Bailey and Albert E. Schwenk, "Wage Differences Among Manufacturing Establishments," Monthly Labor Review, Vol. XCIV (May, 1971), p. 17, and Richard Lester, "Pay Differentials by Size of Establishment," Industrial Relations, Vol. VII (October, 1967), p. 65.

49 Stanley H. Masters, "An Interindustry Analysis of Wages and Plant Size," Review of Economics and Statistics, Vol. LI (August, 1969), p. 343.

50 Lester, p. 67.

However, it is not clear that those factors which are thought to contribute to the higher wage levels in large firms also contribute to greater occupational mobility. For example, regarding the effects of unionization on advancement opportunity, we have the observation of the Shelley report that "interviews with union leaders at the grass roots levels--if they can be taken as fairly reflective of their constituencies' interests--revealed little or no concern with the potential for promotion in any industry."[51] Of course, unionization would promote a greater degree of internal mobility if collective bargaining agreements require that vacancies be filled from within in many cases where, in the absence of such a requirement, the employer would hire "from the outside." However, the effect of unionization in this respect remains unmeasured.

Several studies cited earlier emphasize the importance of a firm's occupational structure as the major determinant of the degree of internal mobility. Thus, a useful thoery of the effect of firm size on internal mobility would have to include a discussion of the relationship between firm size and the shape of the occupational pyramid. Reynolds provided a brief discussion of this question in his analysis of the determinants of internal upward mobility. According to Reynolds, the extent of such mobility in manufacturing plants varies directly with the variety of products manufactured, the frequency of changes in type and quantity of output, and the range of skills required in the production process.

> Size of plant is important insofar as it may involve one of the three previous factors. In general, greater size of plant normally means greater variety of products and greater possibilities of upward movement.[52]

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51 Grinker, Cooke, and Kirsch, p. 18.

52 Reynolds, p. 141.

Having examined the relationship between firm size and advancement opportunity, we now consider the assumption that greater advancement opportunity will generate increased firm attachment. As indicated in the previous chapter, while such an assumption is fully in accord with the marginal productivity theory of labor, the point has not received due attention. Furthermore empirical analysis of the relationship between attachment (or its complement, mobility) and advancement opportunity has relied on wage rates, rather than a measure of actual upward mobility, to represent advancement opportunity.[53]

One of the few writers to investigate the relationship between attachment (or persistence) and upward mobility was Gitelman, in his previously cited study of the internal labor market of the Waltham Watch Company. However, Gitelman did not find a causal relationship between persistence and mobility.

> The fact that mobility was greatest in those quinquennia when persistence rates were lowest and vice versa, suggests that the extent to which workers persist is not causally related to mobility. Although persistence is a necessary precondition for mobility, it is not a determinant of mobility.[54]

It is interesting to note that Gitelman was concerned with persistence as a cause of upward mobility, rather than with the prospect of upward mobility as a cause of persistence. He did not focus on the question of whether the prospect of advancement opportunity generates attachment to the internal labor market.

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[53] In addition to the studies cited earlier, see Alan K. Severn, "Upward Labor Mobility: Opportunity or Incentive," Quarterly Journal of Economics, Vol. LXXXII (February, 1968), pp. 143-151.

[54] Gitelman, p. 58.

Effect of Age on Attachment

Many studies have found an inverse relationship between age and both interfirm and interindustry mobility. Almost twenty years ago, Herbert Parnes wrote, "So universally has mobility been found to decline with advancing age that this relationship may be regarded as conclusively established." Parnes continued, "Not only do older workers make fewer changes of employer than younger workers, but when they do move their industrial and occupational mobility is lower."[55]

A four-year longitudinal study of the labor-market experience of various groups of workers which is currently being conducted by the Center for Human Resource Research of the Ohio State University has also demonstrated an inverse relationship between age and potential mobility. While about two-fifths of the employed men in the survey aged 45-59 were designated as "highly attached" to their employers, only one-seventh of the men aged 16-24 who are employed and no longer in school were so classified. The designation "highly attached" was based on a worker's response to a survey question in which he said that he would not take another job at any wage.[56] (It is not important that this response be taken literally; it is simply a measure of relative potential mobility.)

Gallaway's analysis of Social Security data also revealed the consistent decline in interindustry mobility which accompanies advancing age. The proportion of male workers who were in the same industry in 1960 as in 1957

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[55] Herbert S. Parnes, Research on Labor Mobility (New York: Social Science Research Council, 1954), pp. 102-104.

[56] Career Thresholds: A Longitudinal Study of the Educational and Labor Market Experience of Male Youth, Vol. I, Manpower Research Monograph No. 16 (Washington: U.S. Government Printing Office, 1970), pp. 149-152.

was 41.4% for teenagers, 62.5% in the 25-29 age bracket, 76.9% among those aged 35-39, and 85.9% for those 60-64 years old.[57]

While Gallaway found that increasing age was accompanied by a decline in interindustry mobility, he also suggested that increasing age may result in an increase in involuntary mobility. This conclusion was prompted by the finding that interindustry movement of males aged 55-59 between 1957 and 1960 led to increases in the proportion of these workers in low-wage industries such as agriculture, and decreases in the proportion in high-wage industries such as mining, durable and nondurable manufacturing, and transportation and public utilities.[58]

Age and Advancement

A recent study by John McCall based on data derived from the Continuous Work History Sample of the Social Security Administration for the period 1957-66 shows a negative relationship between age and the ability of low-income workers to raise their incomes. McCall found that among white males earning below $4,500 in 1957, 10% of those aged 25 to 34 in (1960) still had incomes below $4,500 in 1966; the corresponding figures were 14% in the 35-44 age group, and 17% among those aged 45-54.[59] Similar, negative relationships between age and advancement emerged for low-income workers in the other race-sex groups. McCall did not distinguish in his analysis between the advancement rates of firm and industry stayers and industry leavers.

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57 Gallaway, p. 62.

58 Ibid., p. 71.

59 John J. McCall, Earnings Mobility and Economic Growth (Santa Monica: Rand Corporation, October 1970), p. 18.

Sex and Attachment

There is general agreement that attachment rates of females are higher than those of males. Thus, as we have seen earlier, Terence Wales found an inverse relationship between the proportion of females in an industry's workforce and the industry's quit rate. A Bureau of Labor Statistics study of workers employed in 1961 found that eleven percent of the males changed jobs during the year, compared to only 8.6% of the female workers.[60] On the basis of his overall survey of the literature on male-female differences in mobility, Herbert Parnes has written:

> Mobility rates of all kinds appear to be higher among men than women, although it is not certain to what extent this is due to occupational differences and to differences between the two sexes in their continuity of labor force exposure.[61]

Parnes pointed out, however, that while females change employers less often than do males, they move in and out of the labor force more frequently than do males.

Race and Attachment

A Bureau of Labor Statistics study of job tenure of workers employed in January, 1968 reported that among women 25 years old and over, "there was no statistically significant difference in tenure for persons in the same age group, whether they were white or nonwhite..."[62] Other studies, however, have found higher mobility rates among Negro males than among white males, and

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60 Gertrude Bancroft and Stuart Garfinkle, "Job Mobility in 1961," U.S. Department of Labor, Bureau of Labor Statistics, Special Labor Force Report No. 35, Table D.

61 Herbert S. Parnes, "Labor Force and Labor Markets," in Woodrow L. Ginsburg, et al, A Review of Industrial Relations Research, Vol. I (Madison, Wisconsin: Industrial Relations Research Association, 1970), p. 46.

62 Edward J. O'Boyle, "Job Tenure: How It Relates to Race and Age," Monthly Labor Review, Vol. XCII (September, 1969), p. 18.

lower rates among Negro females than among white females. Thus Gallaway found the proportions of industry changers to be 31.6% for Negro males, 25.7% for white males, 25.0% for white females, and 20.8% for Negro females.[63] A similar finding with regard to interfirm movement was reported in a Bureau of Labor Statistics study of job changers in 1961; the proportions of workers who changed employers during the year were 12.8% for nonwhite men, 10.9% for white men, 7.0% for nonwhite women, and 8.8% for white women.[64]

With respect to white-black differences in male mobility, many other studies have reported similar results. The Labor Department's survey of workers employed in January 1968 found, "Among men age 25 and over, tenure was longer for whites than nonwhites in almost every age group.[65] The Ohio State longitudinal study of young men has reported:

> Blacks changed jobs more frequently than whites. During the 1966-68 period, 55 percent of the whites and 68 percent of the blacks made at least one job change. Three or more shifts were made by 15 percent of the whites and 22 percent of the blacks. Some 51 percent of the whites but only 36 percent of the blacks had the same employer at all three surveys.[66]

The high degree of mobility among Negro males would not be of concern if it served to increase the incomes of the movers. According to the Ohio State University study, mobility has, in fact, "paid off" for young black males. White firm stayers in the survey had a 25% pay increase between 1966 and 1968. Those whites who had different employers on two of the three survey dates had

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63 Gallaway, p. 29.

64 Bancroft and Garfinkle, Table D.

65 O'Boyle, p. 18.

66 "Labor Market Experience of Young Men," Manpower (March, 1972), p. 21.

an average increase of 34%, while those who were with different firms in all three years had an increase of only 22%. For blacks, the corresponding figures were 30%, 39%, and 44%. "These results are particularly impressive in view of the fact that all job changers were lumped together, those who were fired or laid off as well as those who left voluntarily."[67] The same study has also shown that potential (voluntary) mobility is greater for blacks than for whites; only one-tenth of the young blacks in the study were characterized as "highly attached" to their employers, compared to one-sixth of the young whites.[68]

Gallaway, however, has painted a less optimistic picture of the effects of Negro male mobility. Commenting on his finding that the proportions of industry stayers among Negroes were high in low-income industries, and relatively low in high-income industries, Gallaway observed, "Essentially, this indicates a systematic tendency on the part of the process of inter-industry labor mobility towards shifting Negores into the lower income industries".[69] Gallaway added, "...there appears to be a substantially greater amount of involuntary labor mobility among Negroes than among other workers".[70]

Race and Advancement

A small number of writers have focused on the effects of race on

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67 Ibid., p. 20.

68 Career Thresholds, p. 152.

69 Gallaway, p. 79.

70 Ibid., p. 88.

advancement within the internal labor market. After analyzing the factors affecting the incomes of workers in the internal labor market, Alexander wrote:

> The chief items of interest in the equations are the lower coefficients for nonwhites for firm experience, industry experience and age, and the higher coefficient for establishment size. Quite obviously, time has a smaller payoff for nonwhites than it has for whites.[71]

Furthermore, when Alexander divided his sample by location of employer, he found one major difference between the income equations for northern and southern workers: the firm-experience variable was not significant for nonwhites in southern manorial industries. His conclusion was that, "This result may indicate the relegation of nonwhites to dead-end jobs--jobs that have no future, not even in the short run".[72]

In his study of internal mobility in five industries in New York City, Brecher also found that not all segments of the workforce had equal access to the promotion ladders in the industries studied. In construction, for example,

> ...approximately 12 percent of the total male labor force is Negro; however, there are no Negroes in the highest income category and there was substantial underrepresentation at income levels of $8,000 and above.[73]

Analysis of the data on the food service industry yielded a similar result:

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71 Alexander, p. 17.

72 Ibid., p. 22.

73 Brecher, p. 72.

> ...the Social Security data drawn from restaurants in New York City indicated that well over 80 percent of those in the highest income categories were recruited from within the industry; yet none were Negro, even though blacks constituted about 20 percent of the lower level workforce.[74]

Race-Sex and Advancement

Recently, several writers have commented on the relatively more successful labor market experience of black females than that of black males. In an article published in 1964, Alan Batchelder showed that while female Negro incomes as a percentage of female white incomes increased from 51.10 in 1949 to 59.97 in 1959, male Negro income as a percentage of male white income fell during the decade, despite the fact that many blacks moved during the period from the South, where the ratio is lowest, to other sections of the country.[75] Another article, by Duran Bell, cites Census data showing that the black/white ratio of median earnings for females increased from .57 to .75 between 1965 and 1969, while the ratio for males rose only from .58 to .63 during the period.[76]

Neither study cited above examined the relative abilities of specific individuals in the various race-sex groups to raise their incomes. McCall's study, however, shows that while within each race, low-income males were more successful in rising above the $4,500 level than were females, black

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74 Ibid., p. 103

75 Alan B. Batchelder, "Decline in the Relative Income of Negro Men," Quarterly Journal of Economics, Vol. LXXVIII (November, 1964), pp. 529-531.

76 Duran Bell, "Occupational Discrimination as a Source of Income Differences: Lessons of the 1960's," American Economic Review, Vol. LXII (May, 1972) p. 363.

females did better relative to their white counterparts than did black males.[77]

As mentioned earlier, McCall did not distinguish between internal upward mobility and increases in income achieved through interfirm or industry movement.

Conclusion

The review of the literature has shown that much empirical work remains to be done on the attachment and internal mobility patterns of low-income workers. Of the major writers cited, Reynolds analyzed upward mobility only in occupational terms. Despite his observation that, "To many workers, indeed, more money is virtually the whole meaning of occupational progress,"[78] Reynolds did not analyze changes in worker incomes within the internal labor market. The major weaknesses in the Gallaway study are the author's use of ten major industrial groupings (rather than finer industrial classifications), and his reliance on "mean wages" (rather than a measure of upward mobility) to represent what workers perceive to be their earnings opportunities in a particular industry.

The chief weakness of the Shelley study is that it provides only a static view of the potential for advancement in each industry, and it fails to shed light on the dynamics of the internal mobility process itself. The report leaves unanswered such questions as: What percent of the low-income workers in each industry manage to achieve significant income gains over a given period of time? What percent of the more skilled jobs in each

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77 McCall, pp. 18, 40.

78 Reynolds, p. 153.

industry are filled by workers who began their careers in the industry in entry-level positions? Do blacks and whites have equal access to the promotion ladders?

As a group, the studies cited fail to distinguish between firm attachment and intrafirm mobility on the one hand, and industry attachment and intra-industry (but interfirm) mobility on the other. In addition, insufficient attention has been paid to the specific issue of the internal labor market behavior of low-income workers.

The effects of factors such as firm size, employment growth, and advancement opportunity on attachment to the internal labor market also require additional study. Gitelman analyzed the relationship between attachment and advancement, but his focus was on attachment as a cause of advancement, rather than on advancement opportunity as a determinant of attachment. His finding that quit rates were high in those periods when internal mobility was high is fully consonant with the hypothesis that opportunity produces attachment; quit rates were high because of external labor market conditions which were conducive to "internal" upward mobility. In order to test the effect of advancement opportunity on attachment to the internal labor market, we must first "equalize" for external labor market conditions: At a given point in time, is attachment greater to those internal markets which reward persistence with advancement? This study is designed to shed light on this question as well as on others which have not received adequate attention in the literature.

CHAPTER III

METHODOLOGY

The Data

The data on which this study is based are derived from the Continuous Work History Sample of the Social Security Administration. This sample consists of a one-percent random selection of all individuals who have ever been issued Social Security numbers. For each individual, the file contains information on race, sex, and date of birth, in addition to a continuous work record indicating the location and industry of each employer, as well as the amount of taxable wages received from each employer.

The data analyzed in the following two chapters consist of matrices showing the distribution of 1970 incomes by 1965 income class for workers employed in both years. For each industrial category,[79] the 1965 workforce is divided into three groups: those who remained with the same employer over the period, those who remained in the same industry but switched employers, and those who switched industries; the data are further broken down by age, race, sex, and race-sex groups. The data for New York City are part of the Social Security Administration's random one-percent continuous work history file; the national data are a one-in-one-thousand random sample. Information relating to geographic location refers to individuals' place of employment, rather than to residence; our analysis of upward mobility in New York City therefore relates to advancement opportunities provided by the City's economy, though not necessarily for City

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[79] The data are broken down at the two-digit Standard Industrial Classification level.

residents.[80]

The earnings data for both 1965 and 1970 are first-quarter data expressed at an annual rate (i.e., multiplied by four). The use of first-quarter data avoids the data distortion which might be introduced by the inclusion of students who enter the workforce for the second and third quarters of the year, and of temporary workers who enter during the fourth quarter, in the busy pre-Christmas season. The earnings data include income in all covered employment, while a worker's firm and industry are determined by the firm which provided the largest share of his total covered income. The income classes shown in the matrices are $1,000 intervals (0-$999, $1,000-1,999,...$14,000-14,999), and an open-ended "15,000+" category.

Strengths and Weaknesses of the Data

Because the Social Security file is continuous, and traces the labor market activity of the same workers over a period of time, the data are ideally suited for studies of worker mobility. Economists have long recognized the usefulness of Social Security data for mobility studies; almost twenty years ago, Herbert Parnes wrote:

> ...use of Old-Age and Survivors Insurance data has some real advantages in research on mobility. These data probably have a higher degree of validity than work experience data from any

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[80] One minor problem with the New York sample is that the data cover workers who were employed in New York City in 1965 and employed anywhere in the Standard Metropolitan Statistical Area (New York City, Nassau, Suffolk, Rockland, and Westchester Counties) in 1970; the sample is thus not purely a New York City sample. However, the extent of the data distortion created by this problem is believed to be negligible, as only a very small proportion of the workers employed in any industry in New York in 1965 could have been employed elsewhere in the SMSA in 1970. The proportion will be especially small in the case of low-income workers, who have little access to suburban jobs, and the bulk of our analysis deals with low-income workers.

> other source, for there is no distortion from faulty memory, and willful falsification creates legal liability. Moreover, the data are already collected and need only to be compiled. Perhaps their greatest advantage lies in the possibliity of continuous observation of any selected sample of workers. Workers cannot move into and out of the sample, as they can in local population surveys or in studies of personnel records, although "disappearance" from the sample as a result of movement into noncovered employment is possible.[81]

In a more recent review of the literature on labor mobility, Herbert Parnes listed several shortcomings of the Social Security file as a data source:

> ...the earnings of high wage earners can only be estimated since there is an upper limit on taxable earnings. Moreover, the fact that a few types of work are still not covered under the Social Security program means that disappearance from the sample may occur not only as the result of unemployment, withdrawal from the labor force, or death, but also as the result of movement into non-covered employment. Another limitation is that occupational mobility cannot be studied, since employers are not required to provide any information on occupational assignment. Finally, the data provide no basis for differentiating between job changes that are voluntary and those that occur at the initiative of the employer.[82]

Two of Parnes' points do not apply to the current study. The accuracy of the data for high-income workers is of minor importance for several reasons:

(a) the limit on taxable earnings was $4,800 in 1965 and $7,800 in 1970; use of first-quarter data thus provides accuracy up to the $19,000 level in 1965 (4 X $4,800 = $19,200), and to the $31,000 level in 1970 (4 X $7,800 = $31,200);

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81 Herbert S. Parnes, Research on Labor Mobility (New York: Social Science Reserach Council, 1954), p. 48.

82 Herbert S. Parnes, "Labor Force and Labor Markets," in Woodrow L. Ginsburg, et al, A Review of Industrial Relations Research, Vol. I (Madison, Wisconsin: Industrial Relations Research Association, 1970), p. 37.

(b) as indicated above, the highest income category to be considered in the analysis is an open-ended "15,000+" category;

(c) the study is concerned primarily with low-income ($3,000 - $5,000) workers who can only yearn to be in a position where the taxable limit would affect the accuracy of data on their incomes.

As for the problem of employment not covered by Social Security, the Social Security Administration estimates that as much as 89% of the nation's wage and salary workforce was covered by Social Security in 1965. Furthermore, the majority of uncovered workers are government workers,[83] while our analysis is limited to workers in the private sector.

The problems resulting from the absence of data on workers' occupations and on the nature of worker mobility (voluntary vs. involuntary) are unavoidable in the use of Social Security data. The latter problem has already been encountered in our discussion of Gallaway's work, and further reference shall be made to it in the course of our analysis. In the analysis of the apparel, banking, and general merchandise store industries in Chapter Five, some attempt is made to relate earnings levels to specific occupations.

An additional problem with the Social Security data is the inability to distinguish between part-time and full-time workers. One writer has attempted to make such a distinction by dividing his sample into two groups: those with income in all four quarters of the year, and those with income in fewer than four quarters.[84] However, while such a distinction is useful

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83 John J. McCall, Earnings Mobility and Economic Growth, (Santa Monica: Rand, October, 1970), p. 67.

84 William Johnson, Changing Patterns of Employment in the New York Metropolitan Area, (New York: Rand, 1971), pp. 30-34.

in identifying part-year workers (an unnecessary distinction in the current study, since we are using first-quarter data), it does not identify persons who may work year-round, but only part-week.

It is possible, however, to minimize the confusion generated by the inability to distinguish between full and part-time workers. The discussion of specific industries in Chapter Five incorporates information from other sources on the extent of part-time employment in each industry. Furthermore, some part-time workers can be identified because under existing minimum wage legislation, their earnings are too low for these workers to have been employed full-time during the quarter on which the data are based. Finally, one should bear in mind that in many industries the decision to work part-time rather than full-time may not be a voluntary one; in such cases, an increase in earnings which reflects, in part, a move from part-time to full-time work is, indeed, representative of a type of upward mobility.

Definition of "Low-Income"

"Low-income" workers are defined in our study as those earning between $3,000 and $5,000 in 1965. The minimum wage (both Federal and New York State) in 1965 was $1.25 per hour; a person employed full-time (forty hours per week), full-year, would have had a minimum income of $2,600. Therefore, none of the workers in the sample who were earning under $2,000 in 1965 worked full-time, full-quarter, and a substantial (though indeterminate) number of those earning between $2,000 and $3,000 were also part-time workers. In order to eliminate the effects of part-time employment on our findings, we therefore set $3,000 as the minimum 1965 income necessary for inclusion in this part of the analysis. (In Chapter Five, where we focus on three specific industries, and where part-time, as well as full-time employment is relevant, we include

in our analysis those workers earning below $3,000.) The choice of $5,000 (approxinately $100 per week) as the upper limit of the low-income range corresponds to the income ceiling for worker eligibility set by the Training Incentive Payments Program, a manpower effort for which this study is intended to yield policy direction. The size of the low-income workforce is well documented in our data. Workers in the $3,000-$5,000 range in 1965 constitute 27.9% of the workforce stayers in the New York sample and 25.4% of those in the national sample. The proportions of low-income workers would appear much higher, of course, if they included those earning under $3,000.

Definition of "Advancement"

In our analysis of the upward mobility, or "advancement" patterns of low-income workers, "advancement" is defined as a minimum upward movement of two income classes. Thus, to be considered as having advanced, a worker who was earning between $3,000 and $4,000 in 1965 must have been earning at least $5,000 in 1970, and a worker whose 1965 income was between $4,000 and $5,000 must have been at least in the $6,000-7,000 bracket in 1970.

In setting this advancement criterion, we must, of course, take into account the effects of inflation on the "real" value of dollar incomes. According to Bureau of Labor Statistics figures, the consumer price index for the New York, N.Y.-Northeastern New Jersey area increased by 23.5%--from 93.2 to 115.1 between January 1965 and January 1970; the corresponding increase for all U.S. cities was 21.0%--from 93.6 to 113.3.[85] Thus, a 1965 income of $4,000--the "average" of our low-income sample--would be equal to $4,940 in 1970 dollars for a New York City worker, and $4,840 for a worker in the national sample. Our criterion of a minimum jump of two $1,000

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85 Data supplied by U.S. Department of Labor, Bureau of Labor Statistics, Middle Atlantic Regional Office.

brackets thus provides for a significant increase in real income for the average worker in the sample.

In addition, our advancement criterion reflects more than the average earnings increase for workers during the period in question, and is therefore indicative of some upward movement, either in occupation or skill level According to Bureau of Labor Statistics figures, the average weekly earnings of production or nonsupervisory workers in manufacturing in New York City rose by 29.6% from $97.88 to $126.82, between 1965 and 1970.[86] The average weekly earnings of production or nonsupervisory workers on private non-agricultural payrolls in the nation rose by 25.7%--from $95.06 to $119.46.[87] Applying these rates of wage increase to a 1965 income of $4,000 yields a 1970 income of $5,184 for the New York City worker, and $5,028 for the worker in the national sample. Both figures are far below our advancement standard of a jump of two $1,000 brackets.

The Economic Setting

The period on which the analysis is based was characterized by a generally high level of economic activity. The national unemployment rate for all civilian workers averaged 4.5% in 1965, 3.8% during each of the next two years, 3.6% in 1968, and 3.5% in 1969. Business conditions than began to worsen, and by March 1970 (the last month covered by the income data employed in this study), the seasonally adjusted unemployment rate was 4.4%.[88]

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[86] U.S. Dept. of Labor, Bureau of Labor Statistics, Employment and Earnings States and Areas 1939-70, Bulletin 1370-8.

[87] U.S. Dept. of Labor, Bureau of Labor Statistics, Employment and Earnings United States 1909-71, Bulletin 1312-8.

[88] U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, February 1972.

The unemployment rates for New York City followed a similar course, falling from 4.6% in 1965 to 4.2% in 1966, 3.7% in 1967, 3.2% in 1968, and 3.1% in 1969. The (unadjusted) rates for the first three months of 1970 were 3.6% in January, 3.5% in February, and 3.3% in March.[89]

While the trends in the unemployment rate in the nation and the City ran roughly parallel during the period under consideration, there were significant differences between the patterns of employment growth in the nation and the City. Total employment nationally in private nonagricultural establishments grew by 18.2%--from 48,644,000 to 57,483,000 between January 1965 and January 1970.[90] In New York City, meanwhile, the rate of employment growth between 1965 and 1970 was only 5.2%--from 3,577,300 to 3,763,800. There was a decline in manufacturing employment in New York City of 10.7%--from 865,100 to 772,800. The major gains in employment in New York were in categories such as finance, insurance, and real estate (18.5%--from 391,400 to 463,900), and services (15.9%--from 681,000 to 789,500).[91]

Focus on New York City

The study focuses on New York City for several reasons. First, New York is the site of the Training Incentive Payments Program. More importantly, the problem of the low-wage worker is especially significant in New York. As Charles Brecher has written:

> The New York City labor market is characterized by the multiple problems which upgrading is intended to alleviate.

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89 Data supplied by New York State Department of Labor, Division of Research and Statistics, Economic Field Services, New York City Office.

90 U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings, United States 1909-70, Bulletin 1312-7.

91 Employment and Earnings States and Areas 1939-70.

> Its labor force consists of a relatively large percentage of minority group workers (18 percent Negro and 9 percent Puerto Rican). Underemployment is a far more serious problem than unemployment in the city's economy.[92]

The extent of underemployment in New York City is documented in a Bureau of Labor Statistics publication reporting that in October 1969, one-quarter of all full-time workers in New York City were earning less than $100 per week.[93] According to the same source, an estimated "lower standard" budget for a four-person family living in the New York metropolitan area in the spring of 1969 was $6,771 per year (or $130 per week).[94]

The plight of the low-wage worker in New York City has important social consequences, as described by Emanual Tobier, in his analysis of the prospects of the black or Puerto Rican migrant to the City:

> The migrants come to the city as young single adults, taking up temporary residence with relatives or fellow townspeople who had moved here earlier. They soon form households and begin to raise a family with the wife thus effectively removed from the labor force and from an opportunity to supplement the family's income by the circumstances of child-raising. The husband, meanwhile, persists in a succession of badly paying and marginal jobs which lead him nowhere (or very close to it)...
>
> What seems to be involved then is not merely a question of finding a job--any job--for this seems to present relatively few problems. Of greater importance is the cumulative impact of the kinds of jobs that become available. For these, by their very nature, serve to epitomize and reinforce the feeling of vulnerability experienced by Negroes and Puerto Ricans, confirming further for them their marginal relationship to the economic process...

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92 Charles Brecher, Upgrading Blue Collar and Service Workers, (Baltimore: Johns Hopkins University Press, 1972), p. 12.

93 U.S. Department of Labor, Bureau of Labor Statistics, "Some Facts Relating to Earnings and Wages in New York City," March 1970, p.1.

94 Ibid., p. 19.

> The high rates of unemployment, underemployment, and subminimum earnings in the city's minority labor force are evidence, in part, that many men are seeking but cannot obtain jobs which will support a family. Perhaps, equally important, many jobs they can get are at the low end of the occupational scale and often lack the necessary status to sustain a worker's self-respect or the respect of his family and friends. Under these pressures it is not surprising that many of these men flee their responsibilities as husbands and fathers, leaving home and drifting from city to city, or adopting the style of "street corner men." [95]

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[95] Emanuel Tobier, "Economic Development Strategy for the City," in Lyle C. Fitch and Annmarie Hauck Walsh (eds.) Agenda for a City: Issues Confronting New York (Beverly Hills: Sage Publications, 1970), pp. 44-45.

CHAPTER IV

ATTACHMENT AND ADVANCEMENT PATTERNS OF LOW-INCOME WORKERS

Summary

This chapter begins with our findings on the attachment and advancement patterns of various demographic groups in the low-income workforce. Whites show a somewhat greater degree of firm and industry attachment than do blacks; within each race, females show higher attachment rates than males. Attachment is also found to increase with rising age.

Close to 60% of the workers in the New York and national samples advanced. The advancement rates were about equal for firm stayers and leavers, reflecting the mixed effects of voluntary and involuntary mobility. Black stayers were as successful as whites in advancing, while mobile blacks fared slightly worse than mobile whites. Male workers showed higher advancement rates than female workers, and young workers were more upwardly mobile than older workers.

The second part of the chapter tests the effects of several variables on attachment and advancement. An industry's growth rate seemed to have a negative effect on attachment and no significant effect on advancement. Analysis of the effects of firm size on attachment and advancement yielded mixed results, as did an analysis of the effects of advancement opportunity on attachment. Average income level in an industry had an insignificant effect on attachment, but a significant positive effect on advancement.

Our findings are presented in the following pages. They are discussed at greater length in Chapter Six.

Firm and Industry Attachment by Demographic Group

Data on the firm and industry attachment patterns of low-income

workers by race, sex, and race-sex gruup are presented in Table 4.1. Of the low-income private sector workers in the New York sample, 47.5% were still with the same employer in 1970, 19.8% were with a different employer in the same industry, and the remaining 32.7% had changed industries.

Our findings on differences in the attachment (or mobility) rates among race and sex groups are generally consistent with those of previous studies. As shown in Table 4.1, whites have a higher degree of firm attachment (48.3%) than do blacks (44.4%), and are less likely to switch industries (31.9%) than are blacks (35.9%). The table indicates that the lower mobility among whites applies to both males and females; 42% of the white males, and 54% of the white females were firm stayers, compared to only 40% of the black males and 50% of the balck females. Forty percent of the black males and 30% of the black females switched industries, compared to only 36% of the white males, and 28% of the white females.

A very interesting finding emerging from the data is the high degree of female firm attachment. As indicated in Table 4.1, 53.6% of the females in the sample were employed by the same firm in both 1965 and 1970. The table reveals, too, that the firm-attachment rates for both white and black females were over 50%. Furtheremore, among "firm leavers" of each race, a greater proportion of females than males remained in the same industry.

In considering the high attachment rates exhibited by females, one must remember that the sample is limited to workers who were employed in both 1965 and 1970. Since females tend to move in and out of the labor force with greater frequency than do males, and since workers employed in 1965, but not in 1970 (or, alternatively, in 1970, but not in 1965) are excluded from the sample, our figures tend to overstate the degree of female

TABLE 4.1

ATTACHMENT PATTERNS OF NEW YORK CITY WORKERS
EARNING $3,000-5000 IN 1965 AND STILL EMPLOYED IN 1970, BY RACE,
SEX, AND RACE-SEX GROUP

	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
TOTAL	5444	47.5	19.8	32.7
WHITES	4295	48.3	19.8	31.9
BLACKS	1149	44.4	19.7	35.9
MALES	2787	41.7	21.3	37.0
FEMALES	2657	53.6	18.2	28.2
WHITE MALES	2122	42.2	21.7	36.1
WHITE FEMALES	2173	54.3	17.9	27.7
BLACK MALES	665	40.2	19.8	40.0
BLACK FEMALES	484	50.2	19.4	30.4

SOURCE: Social Security Data

NOTE: At a confidence level of 95%, the firm-attachment rates for the entire sample, for whites, for males, and for females are reliable ±2%; the rates for white males and white females are reliable ±2.1%, blacks ± 2.9%, black males 3.7%, and black females 4.4%.

firm and industry attachment. However, if we consider only workers with a consistent labor force participation over the period, females show a greater degree of firm and industry attachment than do males.

The national-sample attachment data presented in Table 4.2 show no sharp differences from the New York data which might cause us to regard the latter sample as unique. The firm-attachment rates are generally higher in the New York sample, probably because geographically mobile workers who were employed in New York in 1965, and elsewhere in the country in 1970 are excluded from the sample, thus inflating, to some extent, the percentage of the New York sample workers who were firm stayers.

The national data, just as those for New York City, show higher attachment rates for females than for males. Among whites, 53.9% of the females were firm stayers, compared to 38.2% of the males; for blacks, the male-female differential in firm-attachment rates was 49.6% to 40.3%. Among "firm leavers," we find, once again, that within each race females were more likely than males to remain in the same industry.

One minor difference between the New York City and national samples appears when we compare the attachment patterns of white and black males. While the New York data showed a somewhat higher firm-attachment rate for white males (42.2%) than for black males (40.2%), in the national sample, black males (40.3%) have a higher firm-attachment rate than white males (38.2%).

Tables 4.3 and 4.4 present our findings of the attachment patterns of New York City and U.S. low-income workers in three different (1965) age groups--20 to 24, 25 to 39, and "other" (predominately older). In each sample, increasing age is accompanied by a steadily increasing proportion

TABLE 4.2

ATTACHMENT PATTERNS OF U. S. WORKERS EARNING $3,000-5000 IN 1965 AND STILL EMPLOYED IN 1970, BY RACE, SEX, AND RACE-SEX GROUP

	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
TOTAL	9693	45.0	16.7	38.3
WHITES	8649	45.3	16.8	37.9
BLACKS	1044	42.6	16.0	41.4
MALES	5557	38.5	16.3	45.2
FEMALES	4136	53.7	17.3	29.0
WHITE MALES	4777	38.2	16.3	45.4
WHITE FEMALES	3872	53.9	17.4	28.7
BLACK MALES	780	40.3	15.8	44.0
BLACK FEMALES	264	49.6	16.7	33.7

SOURCE: Social Security Data

NOTE: At a confidence level of 95%, the firm-attachment rates for the total sample and for whites are reliable ± 1%; the remaining firm-stayer proportions are reliable ± 2%, except for blacks (± 3%), black males (± 3.4%), and black females (± 6%).

TABLE 4.3

ATTACHMENT PATTERNS OF NEW YORK CITY WORKERS EARNING $3000-5000 IN 1965 AND STILL EMPLOYED IN 1970, BY AGE

Age Group	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
ALL	5444	47.5	19.8	32.7
20-24	841	28.9	15.1	56.0
25-39	1667	41.2	20.2	38.6
OTHER	2936	56.4	20.9	22.8

SOURCE: Social Security Data

NOTE: At a confidence level of 95%, the firm-attachment rates for the four age groups are reliable ± 1.3%, ± 3.1%, ± 2.4%, and ± 1.8%, respectively.

TABLE 4.4

ATTACHMENT PATTERNS OF U. S. WORKERS EARNING $3000-5000 IN 1965 AND STILL EMPLOYED IN 1970, BY AGE

Age Group	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
ALL	9693	45.0	16.7	38.3
20-24	1660	25.9	14.3	59.8
25-39	3424	40.3	16.9	42.7
OTHER	4609	55.3	17.4	27.3

SOURCE: Social Security Data

NOTE: At a confidence level of 95%, the firm-attachment rates for the four age groups are reliable ± 1%, ± 2.1%, ± 1.6%, and ± 1.4%, respectively.

of firm stayers. Furthermore, there is a clear and consistent tendency for older "firm leavers" to display a stronger industry attachment than younger firm leavers. This phenomemom is evident in both the New York and national samples.

Advancement Patterns by Demographic Group

Table 4.5 presents data on the percentages of 1965 low-income New York City firm and industry stayers and industry leavers who advanced, by race, sex, and race-sex group. A somewhat surprising finding in Table 4.5 is that among firm stayers, a higher proportion of blacks (60.4%) advanced than whites (57.1%). However, the figure for blacks is inflated by the over-representation among black firm stayers of workers in the health industry, an industry in which workers experienced significant wage gains during the period.[96] Of the 510 black firm stayers in the sample, 75, or 14.7% were in SIC 80, the health industry; the proportion of white firm stayers employed in this industry was only 4.7% (97 out of 2075). If we exclude the health-industry workers from the calculations, the percentages of firm stayers advancing become almost identical--56.6% (246 out of 435) for blacks and 56.2% (1111 out of 1978) for whites.

The data reveal a difference in the advancement rates between male firm stayers (60.1%) and female firm stayers (55.9%). Among firm leavers, whites and males do better than blacks and females, perhaps reflecting the

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[96] For example, the average weekly earnings of female nursing aides increased by over 40%--from $78.50 to $110.50--between July, 1966 and April, 1970. See U.S. Department of Labor, Bureau of Labor Statistics, Bulletin #1553, "Industry Wage Survey: Hospitals," July, 1966, and Industry Wage Survey Report 71-1, "Earnings of Hospital Workers in New York City, April, 1970," February, 1971.

TABLE 4.5

1965-70 ADVANCEMENT PATTERNS OF LOW-INCOME NEW YORK CITY WORKERS, BY RACE, SEX, AND RACE-SEX GROUP

	PERCENT ADVANCING		
	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
TOTAL	57.8	58.1	59.5
WHITES	57.1	59.1	60.1
BLACKS	60.4	54.4	57.4
MALES	60.1	65.3	63.7
FEMALES	55.9	49.4	53.7
WHITE MALES	60.3	66.8	65.0
WHITE FEMALES	54.6	50.0	53.9
BLACK MALES	59.2	59.8	59.8
BLACK FEMALES	61.7	46.8	53.1

SOURCE: Social Security Data

NOTE: Because of the smaller sample size in each cell, the confidence intervals for the above figures, as well as for the figures in the following "advancement" tables, are somewhat wider than the confidence intervals for the attachment rates.

greater amount of involuntary movement among the latter two groups.

At first glance, the data in Table 4.5 seem to offer evidence of the relatively greater upward mobility of black females than black males. Whereas among whites, male firm stayers (60.3%) had a higher advancement rate than females (54.6%), among blacks the situtation is reversed, with the rate for females (61.7%) exceeding that for males (59.2%). Once again, however, the over-representation of health workers among the black females is partly responsible for their strong showing. Health workers comprise over one-fourth of the black female firm stayers (61 out of 243), but less than 7% of the firm stayers in any other race-sex group (77 of 1180 white females, or 6.5%, 20 of 895 white males or 2.2%, and 14 of 267 black males or 5.2%). If we exclude the health workers from the firm stayers, black females, with an advancement rate of 54.9% (100 of 182 firm stayers advancing) no longer perform better than black males, whose advancement rate becomes 57.7% (146 out of 253 firm stayers advancing).

Another interesting finding in Table 4.5 is that while for three of the race-sex groups, firm leavers did virtually as well as (or better than) firm stayers, among black females, industry stayers (with an advancement rate of 46.8%) and industry leavers (53.1%) fared far worse than firm stayers (61.7%).

Turning to the national data in Table 4.6, we find much greater differences between the performances of the sexes than between those of the races. Among firm stayers, blacks had a slightly higher advancement rate (56.4%) than whites (55.4%) while males (64.5%) far outperformed females (46.9%). The race-sex breakdowns reveal that within each racial group, males fared far better than females in each of the three employment categories.

TABLE 4.6

1965-70 ADVANCEMENT PATTERNS OF LOW-INCOME U. S. WORKERS BY RACE, SEX, AND RACE-SEX GROUP

	PERCENT ADVANCING		
	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
TOTAL	55.5	55.3	55.6
WHITES	55.4	56.6	57.1
BLACKS	56.4	44.3	52.5
MALES	64.5	65.6	64.6
FEMALES	46.9	42.4	39.7
WHITE MALES	65.2	68.5	66.2
WHITE FEMALES	46.8	42.8	39.3
BLACK MALES	60.2	47.2	54.8
BLACK FEMALES	47.3	36.4	43.8

SOURCE: Social Security Data

Black females appear to perform better relative to white females than do black males relative to white males. However, the sample of black females is small, comprising only 131 firm stayers (of whom 62 advanced), 44 industry stayers (of whom 16 advanced), and 89 industry leavers (of whom 39 advanced). The fact that among white males, firm leavers outperformed firm stayers, while among black males, firm leavers fared much worse than firm stayers suggests a good deal of involuntary movement among black males.

The advancement patterns of New York City and United States low-income workers by age group appear in Tables 4.7 and 4.8. The tables reveal that in both the New York and national samples, and within each of the three employment categories, the percentage of workers advancing decreases steadily with increasing age. Interestingly, industry leavers in the "other" age category perform as well relative to firm stayers in their age bracket as do industry leavers in the "25-39" category relative to firm stayers in their age bracket. This finding suggests that involuntary movement may be no more common among the older group than it is among the "25-39" group. Unfortunately, we do not have data for older workers in more narrow age brackets, for whom, previous studies suggest, mobility is likely to be of an involuntary nature.

Effects of Employment Growth

We turn now to an investigation of the effects of employment growth (or contraction) in an industry on the attachment and advancement patterns of the industry's low-income work force. In order to base our analysis on a relatively homogeneous group of industries, we limit the analysis to manufacturing industries in both the New York City and the national samples.

Table 4.9 ranks the manufacturing industries in New York City by rate

TABLE 4.7

1965-70 ADVANCEMENT PATTERNS OF LOW-INCOME NEW YORK CITY WORKERS, BY AGE

Age Group	PERCENT ADVANCING		
	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
ALL	57.8	58.1	59.5
20-24	81.1	78.7	65.8
25-39	65.6	70.3	62.7
OTHER	51.1	47.1	51.9

SOURCE: Social Security Data

TABLE 4.8

1965-70 ADVANCEMENT PATTERNS OF LOW-INCOME U. S. WORKERS, BY AGE

Age Group	PERCENT ADVANCING		
	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
ALL	55.5	55.3	56.6
20-24	74.7	72.3	63.7
25-39	64.2	60.9	60.8
OTHER	47.6	46.3	46.1

SOURCE: Social Security Data

of employment growth, 1965-70. The rates are negative for eighteen of the twenty two-digit industries, indicating that employment shrank in these industries during the period.[97] For each industry, Table 4.9 also shows the attachment data for workers in our New York City sample. These data are summed at the bottom of the table for the ten fast-growing (and slow-shrinking) industries, and also for the ten fast-shrinking industries. A separate summary line is shown for the fast-shrinking group with the apparel industry excluded, because this single industry dominates the fast-shrinking group, accounting for over 53% (578 out of 1,081) of the sample workers in the group.

The attachment rates are tabulated in Table 4.10. The data show that because of the high degree of attachment exhibited by workers in the apparel industry, both the firm-attachment rate (46.3%) and the non-firm industry-attachment rate (22.2%) are higher for the ten fast-shrinking industries than for the growing and slow-shrinking group (44.8%; 14.6%). However, when we exclude the apparel industry from the former group, the growing and slow-shrinking group shows a slight edge in firm attachment (44.8% to 42.1%) and in industry attachment(14.6% to 12.7%).

Repeating this analysis for manufacturing workers in the national sample produces similar results. The national data on employment growth and the attachment and advancement of sample workers in twenty manufacturing industries are shown in Table 4.11; the attachment-rate data are tabulated

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97 SIC 19, Ordnance and Accessories, is excluded throughout our analysis, because of the absence of any data on low-income workers in that industry in New York City. Because of the low level of employment in this industry, its exclusion in no way affects our results.

TABLE 4.9

RATES OF EMPLOYMENT GROWTH AND ATTACHMENT AND ADVANCEMENT PATTERNS OF LOW-INCOME WORKERS, NEW YORK CITY MANUFACTURING INDUSTRIES, 1965-70

SIC	% Change In Employment 1965-70, N.Y.C.	Low-Income Workforce Stayers	Firm Stayers	Advancing Firm Stayers	Industry Stayers	Advancing Industry Stayers	Industry Leavers	Advancing Industry Leavers
21	7.4	3	0	0	0	0	3	3
29	4.1	5	3	3	0	0	2	1
27	-3.0	179	88	57	32	28	59	37
30	-4.3	17	6	4	1	1	10	5
28	-5.3	54	23	13	5	4	26	12
36	-6.3	105	41	22	21	14	43	26
24	-7.0	16	7	3	1	0	8	5
25	-8.4	41	16	7	2	1	23	16
31	-8.5	69	35	11	12	4	22	16
38	-10.0	38	17	9	3	3	18	7
34	-10.4	79	32	20	5	3	42	27
39	-10.8	138	63	22	22	12	53	28
22	-11.0	63	27	12	13	3	23	13
33	-12.1	16	6	3	0	0	10	7
26	-12.7	59	30	14	6	2	23	13
35	-13.1	50	12	8	2	2	36	23
20	-13.8	75	36	15	14	12	25	11
23	-15.5	578	284	98	176	54	118	55
37	-17.5	10	3	0	0	0	7	2
32	-20.4	13	8	4	2	1	3	2
Ten Growing and Slow-Shrinking Industries		527	236	129	77	55	214	128
Ten Fast-Shrinking Industries		1081	501	196	240	89	340	181
Nine Fast-Shrinking Industries (excluding SIC 23)		503	217	98	64	35	222	126

SOURCE: Employment growth-rate percentages based on data in New York State Department of Labor, Division of Employment, A Handbook of Statistical Data New York City Area 1970 (issued November, 1970), and in Employment Review, Vol. XXIV, May, 1971. Other columns based on Social Security Data.

TABLE 4.10

EFFECT OF INDUSTRY GROWTH RATE
ON ATTACHMENT PATTERNS OF LOW-INCOME
NEW YORK CITY MANUFACTURING WORKERS

	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
Ten Growing and Slow-Shrinking Industries	44.8	14.6	40.6
Ten Fast-Shrinking Industries	46.3	22.2	31.5
Nine Fast-Shrinking Industries (excluding SIC 23)	43.1	12.7	44.1

SOURCE: See Table 4.9

in Table 4.12. Because of the larger size of the national smaple in manufacturing industries, we are able to divide manufacturing industries into three groups: six fast-growing, six moderately-growing, and eight slow-growing and shrinking industries.

Once again, we find that employment growth in an industry does not necessarily induce firm and industry attachment. In fact, Table 4.12 shows that the percentage of workers leaving the fast-growing industries (40.6%) is higher than the percentage of workers leaving the moderately-growing industries (36.1%) or the slow-growing and shrinking industries (35.0%).

We test the relationship between industry attachment and growth through the use of regression analysis for both the New York City and national samples of manufacturing industries.[98] For each industry, the dependent variable, FIS, is equal to the total number of firm stayers and (non-firm) industry stayers, divided by the total number of workers in the sample:

$$FIS = \frac{\text{firm stayers + industry stayers}}{\text{firm stayers + industry stayers + industry leavers}}$$

For New York City, the results were:

$$FIS = 45.66 - 1.04G \qquad R^2 = .11$$
$$(-1.33)$$

The results for the national sample were:

$$FIS = 65.79 - .362G \qquad R^2 = .25$$
$$(-2.44)$$

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[98] Because of the samll numbers of sample workers in some industries, the regression analysis for New York City is based on seventeen industries. The analysis for the national sample is based on twenty industries.

TABLE 4.11

RATES OF EMPLOYMENT GROWTH AND ATTACHMENT AND ADVANCEMENT PATTERNS OF LOW-INCOME WORKERS, U. S. MANUFACTURING INDUSTRIES, 1965-70

SIC	Industry	Rate of Employment Growth January 1965 - January 1970	Low-Income Workforce Stayers	Firm Stayers	Advancing Firm Stayers	Industry Stayers	Advancing Industry Stayers	Industry Leavers	Advancing Industry Leavers
30	Rubber & Plastic	31.4	106	42	19	11	4	53	27
38	Instrument & Related	26.3	90	40	22	12	9	38	22
35	Mach. Exc. Elec.	22.5	264	101	66	48	34	115	61
36	Elec [illegible]uip. & Supp.	21.6	385	216	100	53	29	116	59
28	Chem[illegible] & Allied	20.1	154	73	43	14	8	67	34
37	Transportation Equip.	18.7	216	87	69	25	21	104	67
34	Fabricated Metal Prod.	17.0	259	118	75	33	20	108	58
27	Print & Publish	15.2	177	95	52	21	16	61	32
25	Furniture & Fixture	14.5	139	52	21	21	5	66	42
26	Papers & Allied Prod.	14.4	155	74	50	26	12	55	31
22	Textile Mill Prod.	10.3	402	213	76	79	37	110	59
39	Misc. Mfg.	9.0	84	29	10	16	5	39	24
32	Stone, Clay & Glass	6.3	177	87	51	18	12	72	42
33	Primary Metal Ind.	6.0	165	75	49	27	17	63	38
23	Apparel	5.9	330	165	61	83	20	82	41
29	Petroleum & Coal	5.3	16	10	8	1	0	5	4
20	Food & Kindred	3.2	324	158	91	38	20	128	65
24	Lumber & Wood Prod.	2.7	127	49	26	23	9	55	30
31	Leather/Leather Prod.	-3.1	109	66	25	10	3	33	19
21	Tobacco Manufacturing	-10.4	32	21	11	1	0	10	4
	6 Fast-Growing		1215	559	319	163	105	493	270
	6 Moderately Growing		1216	581	284	196	95	439	246
	8 Slow Growing/Shrink		1280	631	322	201	81	448	243

SOURCE: Employment Growth data based on employment data in U.S. Dept. of Labor, Bureau of Labor Statistics, Employment and Earnings United States 1909-70, Bulletin 1312-7. Other columns based on Social Security Data.

TABLE 4.12

EFFECT OF INDUSTRY GROWTH RATE
ON ATTACHMENT PATTERNS OF LOW-INCOME
U. S. MANUFACTURING WORKERS

	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
6 Fast-Growing Industries	46.0	13.4	40.6
6 Moderately Growing Industries	47.8	16.1	36.1
6 Slow-Growing/ Shrinking Industries	49.3	15.7	35.0

SOURCE: See Table 4.11

The t values are shown in parentheses. The t value in the national sample equation is significant at the 5% level. Our findings thus suggest a negative relationship between employment growth and industry attachment.

Growth and Advancement Opportunity

The advancement rates for firm stayers, industry stayers, and industry leavers in the manufacturing industries in the New York City and national samples are tabulated in Tables 4.13 and 4.14, by the growth rate of the industry grouping. In each sample, we see that firm stayers and industry stayers in fast-growing (or slow-shrinking) industries were more successful in advancing than stayers in slow-growing (or fast-shrinking) industries. In New York City, for example, 54.7% of the firm stayers in the growing and slow-shrinking industries advanced, compared to 39.1% in the fast-shrinking industries (45.2% if we exclude the apparel industry).

Regression analysis showed a positive, but insignificant relationship between industry growth and advancement. In the following equations, FA is the advancement rate for firm stayers, while FIA is the combined advancement rate for firm stayers and industry stayers. The regression results for New York City were as follows:

$$FA = 58.56 + .878\ G \qquad R^2 = .12$$
$$(1.42)$$

$$FIA = 62.25 + 1.05\ G \qquad R^2 = .12$$
$$(1.42)$$

The corresponding equations for the national sample were:

$$FA = 52.46 + .166\ G \qquad R^2 = .02$$
$$(0.54)$$

$$FA = 50.24 + .285\ G \qquad R^2 = .05$$
$$(0.93)$$

Effects of Firm Size on Attachment and Advancement

Our next focus is on the effects of average firm size in an industry on

TABLE 4.13

EFFECT OF INDUSTRY GROWTH
ON ADVANCEMENT PATTERNS OF LOW-INCOME
NEW YORK CITY MANUFACTURING WORKERS

	PERCENT ADVANCING		
	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
10 Growing & Slow Shrinking Industries	54.7	71.4	59.8
10 Fast-Shrinking Industries	39.1	37.1	53.2
9 Fast-Shrinking Industries (excluding SIC 23)	45.2	54.7	56.8

SOURCE: See Table 4.9

TABLE 4.14

EFFECT OF INDUSTRY GROWTH
ON ADVANCEMENT PATTERNS OF LOW-INCOME
U. S. MANUFACTURING WORKERS

	PERCENT ADVANCING		
	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
6 Fast-Growing Industries	57.1	64.4	54.8
6 Moderately-Growing Industries	48.9	48.5	56.0
8 Slow-Growing & Shrinking Industries	51.0	40.3	54.2

SOURCE: See Table 4.11

workers' attachment and advancement patterns. Our measure of firm size is the proportion of workers in the industry who are employed in units of 100 or more employees. On the basis of this measure, the manufacturing industries are ranked in terms of firm size in New York City in Table 4.15, and in terms of firm size nationally in Table 4.16. (Data on attachment and advancement in each industry have already appeared in Tables 4.9 and 4.11).

Using regression analysis to test the relationship between firm size and industry attachment, we obtain the following result for the New York City sample:

$$FIS = 62.49 - .127\ S \qquad R^2 = .03$$
$$(-0.71)$$

The coefficient, while not statistically significant, suggests an unexpected negative relationship between firm size and attachment. However, our finding for New York City has limited applicability, because within the category of manufacturing in New York City "large unit" industries tend to represent office employment, while "small-unit" industries represent a greater degree of production work.

Regression analysis for the national sample yielded a positive, though statistically insignificant, relationship between size and attachment:

$$FIS = 52.12 + .127\ S \qquad R^2 = .05$$
$$(1.01)$$

Before we reject the hypothesis relating firm size to attachment, however, let us consider the literature cited in Chapter Two showing that wage rates tend to be higher in large firms than in small firms. Consideration of this phenomenon raises the possibility that we may not have adequately tested the relationship between firm size and attachment for low-income workers. Perhaps, large firms had relatively few workers earning under

TABLE 4.15

FIRM SIZE OF MANUFACTURING INDUSTRIES IN NEW YORK CITY

SIC	Industry	Firm Size
21	Tobacco Manufacturing	96.7
29	Petroleum and Coal	96.3
28	Chemicals and Allied	78.7
37	Transportation Equipment	75.9
33	Primary Metal	75.6
20	Food and Kindred	73.6
36	Electrical Equipment	71.8
38	Instruments	67.3
27	Printing and Publishing	58.3
35	Machinery except Electrical	56.0
26	Paper and Allied	55.6
31	Leather	47.7
30	Rubber and Plastics	42.2
32	Stone, Clay and Glass	42.1
34*	Fabricated Metal Products	41.4
39	Miscellaneous Manufacturing	34.8
22	Textile Mill Products	28.4
25	Furniture and Fixtures	26.8
23	Apparel	22.3
24	Lumber and Wood Products	16.7

* Includes SIC 19

SOURCE: Based on data in Employment Review, November, 1970.

TABLE 4.16

FIRM SIZE OF MANUFACTURING INDUSTRIES IN THE UNITED STATES

SIC	Industry	Firm Size
37	Transportation Equipment	92.7
21	Tobacco Manufacturing	91.5
33	Primary Metal	89.8
36	Electrical Equipment	89.6
22	Textile Mill Products	85.8
38	Instruments	83.5
31	Leather	80.3
26	Paper & Allied	80.3
28	Chemicals & Allied	79.0
29	Petroleum & Coal	78.8
30	Rubber & Plastics	76.3
35	Machinery except Electrical	74.1
20	Food & Kindred	67.2
25	Furniture & Fixtures	66.3
34	Fabricated Metal Products	65.4
32	Stone, Clay & Glass	63.5
23	Apparel	62.7
27	Printing & Publishing	58.9
39	Miscellaneous Manufacturing	55.3
24	Lumber and Wood Products	42.6

$5,000 in 1965, and therefore those workers in the $3,000-$5,000 bracket, even in industries characterized by large firm size, happened to be working in small firms.

On the basis of this reasoning, we may not have adequately tested the hypothesis relating firm size and attachment. In order to test the hypothesis more accurately, we repeat our analysis, this time for national-sample workers earning between $5,000 and $7,000 in 1965. This higher-income sample is more likely to include employees of large establishments in those industries which we identify as "large-unit" industries.

Regression analysis for this higher-income sample yeilds a positive relationship between size and industry attachment, with the coefficient significant at the 10% level.

$$FIS = 61.98 + \underset{(1.80)}{.165\ S} \qquad R^2 = .15$$

We next test the relationship between firm size and advancement, using data for manufacturing industries in each of the three samples. For New York City, the results were as follows:

$$FA = 39.48 + \underset{(1.51)}{.206\ S} \qquad R^2 = .13$$

$$FIA = 33.89 + \underset{(2.44)}{.359\ S} \qquad R^2 = .28$$

Analysis of the low-income national sample yeilded the following equations:

$$FA = 34.55 + \underset{(1.18)}{.268\ S} \qquad R^2 = .07$$

$$FIA = 29.82 + \underset{(1.42)}{.319\ S} \qquad R^2 = .10$$

Analysis of the higher-income national sample produced the following

results:

$$FA = 52.40 + .145\ S \qquad R^2 = .05$$
$$(1.01)$$

$$FIA = 56.00 + .085\ S \qquad R^2 = .02$$
$$(0.54)$$

The coefficients all have the expected positive sign. Only in one of the New York City equations, however, is the coefficient statistically significant.

Advancement Opportunity as a Cause of Attachment

We next test the effect of advancement opportunity on industry attachment. Our measure of advancement opportunity in each industry is FIA, the proportion of firm and industry stayers who were able to advance. The following are the regression results for the New York City sample, the low-income national sample, and the higher-income national sample, respectively:

$$FIS = 82.91 - .517\ FIA \qquad R^2 = .24$$
$$(-2.19)$$

$$FIS = 68.07 - .122\ FIA \qquad R^2 = .05$$
$$(-0.98)$$

$$FIS = 58.37 + .255\ FIA \qquad R^2 = .16$$
$$(1.88)$$

These results are surprising, as the coefficient is negative in two of the three equations, including one where it is statistically significant. In the higher-income national sample, the coefficient is positive, and significant at the 10% level.

Effects of Industry Income Level on Attachment and Advancement

We turn, finally, to the evidence on the effects of mean industry wage in 1970 (as reported in the Social Security file) on attachment and advancement. This analysis is performed only on the low-income New York City sample, as the

income data are not available for the national sample.

Oddly, we find a negative (though insignificant) relationship between industry income level (I) and attachment:

$$FIS = 72.19 - .0022\ I \qquad R^2 = .06$$
$$(-0.99)$$

Industry income level does have the expected positive effect on the advancement rate of firm stayers, with the t value significant at the 5% level:

$$FA = 22.29 + .0038\ I \qquad R^2 = .28$$
$$(2.41)$$

Expressing FIA as a function of income level and growth yields an R^2 of .38:

$$FIA = 27.93 + .0044\ I + .791\ G \qquad R^2 = .38$$
$$(2.41) \quad (1.22)$$

CHAPTER V

ATTACHMENT AND ADVANCEMENT PATTERNS IN THREE INDUSTRIES IN NEW YORK CITY

Summary

In this chapter we analyze the advancement and attachment patterns of workers in the apparel, general merchnadise store, and banking industries in New York City between 1965 and 1970. Advancement was most common in banking, the industry which has the most favorable income "pyramid," and which experienced the largest growth in employment during the period. In general, we find that females and blacks have not been as successful in penetrating the higher income echelons of the three industries as whites and males have been. In our analysis of attachment, we find that significant numbers of workers in the workforce of the three industries--43.5% in apparel, 49.7% in GMS, and 60.9% in banking--ramained with the same employer over the five-year period. In general, attachment rose with increasing income. The apparel industry, which is characterized by small firm size, also had a large proportion of (non-firm) industry stayers. Attachment to this industry is extremely strong, especially in light of the limited potential for upward movement in the industry. Females generally showed stronger attachment than males, and whites exhibited stronger attachment than blacks. Females showed an extremely high degree of attachment to the apparel industry, despite their inability to rise within the industry.

Our findings on advancement and attachment have significant implications for federal manpower policy. These policy implications will be considered in Chapter Six.

Rates of Employment Growth

We preface our analysis of upward mobility by noting the rates of employment growth (contraction) in the three industries in New York City between 1965 and 1970. On the basis of the data in Table 5.1, we would expect worker advancement rates to be higher in banking, where employment grew by 40% over the period, than in general merchandise stores (GMS), where employment grew more slowly, or in apparel, where employment fell by 15.5%.

TABLE 5.1

CHANGE IN EMPLOYMENT IN NEW YORK CITY, 1965-70,
APPAREL, GENERAL MERCHANDISE STORES, AND BANKING

Industry	Employment (000's) 1965	Employment (000's) 1970	Rate of Change
Apparel	241.3	203.8	-15.5%
General Merchandise Stores	83.0	94.4	+13.7%
Banking	94.7	132.8	+40.2%

SOURCE: Employment and Earnings: States and Areas 1939-70. Bureau of Labor Statistics Bulletin 1370-8.

Industry Income Distributions

We have seen in Chapter Two that much of the literature on the internal labor market stresses the importance of an industry's occupational structure (or "pyramid") as a determinant of the potential upward mobility of workers. Before analyzing the upward mobility patterns in the three industries, it is therefore appropriate to examine the shape of the 1970 income pyramid in

each industry, as assembled from the Social Security data.

We must remember that Social Security earnings data on which our analysis is based include part-week, as well as full-week workers. In addition, we must bear in mind that the data for each industry include workers for whom the particular industry was the major source of covered income during the three-month period on which the data are based. Workers may thus be included even if they were not employed in the industry throughout the quarter. The Social Security data will therefore overstate, to some extent, the number of lower-income workers in each industry.

With these caveats in mind, let us examine the data in Tables 5.2, 5.3, and 5.4, which show the 1970 income distributions in the apparel, general merchandise store, and banking industries in New York City. The individual columns in each table show, for each income bracket, the number of 1965-70 firm stayers in the industry, the number of (non-firm) industry stayers, the number of new industry entrants (from other industries and from outside the City's workforce), total employment (the sum of the first three major categories), and the percentage of total employment.

Inter-industry differences in the shape of the income pyramid are readily apparent in the data. The median income is under $4000 in both apparel and general merchandise stores, but close to $8000 in banking. Whereas 65% of the GMS workers and 64% of the apparel workers were earning less than $5000 in 1970, only 22% of the banking workers were in this income range. At the greener end of the income spectrum, less than 5% of the workforce in apparel and GMS were in the $15,000+ range, compared to more than 10% in banking.

One reason for the high proportion of low-income workers in GMS is the

TABLE 5.2

1970 INCOME DISTRIBUTION,
APPAREL INDUSTRY IN NEW YORK CITY

Income Class ($1000)	1965-70 Firm Stayers	1965-70 Industry Stayers	Industry Entrants	Total	Percent
0-1	32	48	158	238	9.4
1-2	41	45	133	219	8.7
2-3	78	66	192	336	13.3
3-4	129	109	259	497	19.7
4-5	98	100	136	334	13.2
5-6	83	61	81	225	8.9
6-7	62	33	65	160	6.3
7-8	46	30	31	107	4.2
8-9	34	13	21	68	2.7
9-10	29	28	16	73	2.9
10-11	23	15	9	47	1.9
11-12	13	12	12	37	1.5
12-13	5	5	12	22	0.9
13-14	11	9	6	26	1.0
14-15	11	1	4	16	0.6
15+	56	32	35	123	4.9
TOTAL	751	607	1,170	2,528	100.1
	(29.7% of 1970 work force in industry)	(24.0%)	(46.3%)		

SOURCE: Social Security Data

NOTE: Because of the small sample size in many cells in the tables in this chapter, the confidence intervals may be quite wide for many of the figures in the tables.

TABLE 5.3

1970 INCOME DISTRIBUTION
GENERAL MERCHANDISE STORE INDUSTRY, NEW YORK CITY

Income Class ($1000)	1965-70 Firm Stayers	1965-70 Industry Stayers	Industry Entrants	Total	Percent
0-1	2	3	153	158	15.7
1-2	14	4	128	146	14.5
2-3	19	11	97	127	12.6
3-4	30	7	78	115	11.4
4-5	45	4	60	109	10.8
5-6	37	5	54	96	9.5
6-7	30	4	37	71	7.1
7-8	12	2	21	35	3.5
8-9	13	3	11	27	2.7
9-10	12	1	12	25	2.5
10-11	3		5	8	0.8
11-12	8	2	7	17	1.7
12-13	7		5	12	1.2
13-14	4	1	3	8	0.8
14-15	4		2	6	0.6
15+	24	7	16	47	4.7
TOTAL	264	54	689	1,007	100.1
	(26.2% of 1970 work force in industry)	(5.4%)	(68.4%)		

SOURCE: Social Security Data

TABLE 5.4

1970 INCOME DISTRIBUTION
BANKING INDUSTRY, NEW YORK CITY

Income Class ($1000)	1965-70 Firm Stayers	1965-70 Industry Stayers	Industry Entrants	Total	Percent
0-1			17	17	1.3
1-2	2	1	37	40	3.0
2-3	2	1	45	48	3.6
3-4	7	3	50	60	4.5
4-5	3	1	128	132	10.0
5-6	13	7	156	176	13.3
6-7	53	15	129	197	14.9
7-8	36	17	82	135	10.2
8-9	32	14	61	107	8.1
9-10	29	12	29	70	5.3
10-11	25	12	28	65	4.9
11-12	22	6	15	43	3.3
12-13	20	6	21	47	3.6
13-14	19	4	5	28	2.1
14-15	12	1	8	21	1.6
15+	94	15	28	137	10.4
TOTAL	369	115	839	1,323	100.1
	(27.9% of 1970 work force in industry)	(8.7%)	(63.4%)		

SOURCE: Social Security Data

importance of part-time work in the industry. According to New York State Labor Department figures, weekly hours for production or non-supervisory workers in this industry averaged 30.9 in March, 1970, compared to 35.3 in apparel manufacturing, and 36.8 in banking.[99] We see in Table 5.3 that more than 30% of the GMS workers were earning under $2000 in 1970, and an additional 12.6% were earning between $2000 and $3000. Since the $1.60 minimum wage in effect at that time implies a weekly (35-hour) income of $56, or an annual income of over $2900, it is clear that at least 40% of the GMS workers in the sample were not employed full-time, full quarter (and, of course, some workers with incomes over $3000 may have been employed part-time at higher wages). By contrast, the concentration of low-income workers in apparel, where part-week work is less common, is in the $2000-$5000 range, rather than the under-$3000 range.

Income Distribution by Sex and Race

Having observed significant inter-industry variation in the shape of the income pyramid, we turn next to the question of whether intraindustry differences exist among the various demographic groups employed in each industry. How does the 1970 income distribution for males in each industry compare to the distribution for females? How do the white and black income distributions compare?

The 1970 income distributions for the three industries, by sex, are presented in Tables 5.5, 5.6, and 5.7. It is clear from the data that males have been far more successful than females in securing the better-paying positions in these industries. Between 11 and 21 percent of the males in

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[99] Employment Review, Volume XXIII (April, 1970). The figure cited is actually the figure for SIC 531, department stores. However, this sub-category dominates SIC 53, accounting for over 73% of the employment in the two-digit industry in March, 1970.

TABLE 5.5

1970 INCOME DISTRIBUTION BY SEX, APPAREL

come ass 1000)	MALES Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent	FEMALES Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent
0-1	13	11	47	71	8.4	19	37	111	167	9.9
1-2	4	10	24	38	4.5	37	35	109	181	10.8
2-3	9	7	25	41	4.8	69	59	167	295	17.5
3-4	8	7	53	68	8.0	121	102	206	429	25.5
4-5	15	16	53	84	9.9	83	84	83	250	14.9
5-6	22	19	37	78	9.2	61	42	44	147	8.7
6-7	25	14	27	66	7.8	37	19	38	94	5.6
7-8	28	19	19	66	7.8	18	11	12	41	2.4
8-9	24	9	15	48	5.7	10	4	6	20	1.2
9-10	22	23	7	52	6.1	7	5	9	21	1.2
0-11	17	10	6	33	3.9	6	5	3	14	0.8
1-12	12	10	10	32	3.8	1	2	2	5	0.3
2-13	2	5	10	17	2.0	3		2	5	0.3
3-14	11	8	6	25	3.0		1		1	0.1
4-15	11	1	4	16	1.9				0	0.0
5+	52	28	32	112	13.2	4	4	3	11	0.7
Total	275	197	375	847	100.0	476	410	795	1,681	99.9

URCE: Social Security Data

TABLE 5.6

1970 INCOME DISTRIBUTION BY SEX,
GENERAL MERCHANDISE STORES

Income Class ($1000)	MALES Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent	FEMALES Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent
0-1		1	45	46	12.5	2	2	108	112	17.5
1-2	1		35	36	9.8	13	4	93	110	17.2
2-3	5		27	32	8.7	14	11	70	95	14.9
3-4			20	20	5.4	30	7	58	95	14.9
4-5	6		20	26	7.1	39	4	40	83	13.0
5-6	10	1	25	36	9.8	27	4	29	60	9.4
6-7	11	1	15	27	7.3	19	3	22	44	6.9
7-8	8	2	13	23	6.2	4		8	12	1.9
8-9	9	2	8	19	5.2	4	1	3	8	1.3
9-10	9	1	10	20	5.4	3		2	5	0.8
10-11	2		4	6	1.6	1		1	2	0.3
11-12	8	1	5	14	3.8		1	2	3	0.5
12-13	4		5	9	2.4	3			3	0.5
13-14	4	1	3	8	2.2					
14-15	3		2	5	1.4	1				
15+	20	6	15	41	11.1	4	1	1	6	0.9
Total	100	16	252	368	99.9	164	38	437	639	100.2

SOURCE: Social Security Data

TABLE 5.7

1970 INCOME DISTRIBUTION BY SEX, BANKING

Income Class ($1000)	MALES					FEMALES				
	Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent	Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent
0-1			5	5	0.8			12	12	1.8
1-2	1		8	9	1.4	1	1	29	31	4.6
2-3	1		17	18	2.8	1	1	28	30	4.4
3-4	3		14	17	2.6	4	3	36	43	6.4
4-5	1		19	20	3.0	2	1	109	112	16.5
5-6	5		45	50	7.7	8	7	111	126	18.6
6-7	15	2	45	62	9.6	38	13	84	135	20.0
7-8	14	6	42	62	9.6	22	11	40	73	10.8
8-9	11	5	40	56	8.7	21	9	21	51	7.5
9-10	16	8	21	45	7.0	13	4	8	25	3.7
10-11	19	11	21	51	7.9	6	1	7	14	2.1
11-12	17	6	13	36	5.6	5		2	7	1.0
12-13	16	6	18	40	6.2	4		3	7	1.0
13-14	19	2	3	24	3.7		2	2	4	0.6
14-15	10	1	8	19	2.9	2			2	0.3
15+	91	15	26	132	20.4	3		2	5	0.7
Total	239	62	345	646	99.9	130	53	494	677	100.0

SOURCE: Social Security Data

each industry, but less than 1 percent of the females, appear in the $15,000+ category. At least 33% of the male workforce in each industry was earning over $8,000 in 1970; the proportions of females in this income range were 4.6% in apparel, 4.4% in GMS, and 17.0% in banking. At the lower end of the income scale, more than 33% of the females in banking, and almost 80% of those in the other two industries had incomes below $5,000; the corresponding percentages for males are far lower--only 10.7% in banking, 35.7% in apparel, and 43.5% in GMS. To some extent, and especially in general merchandise stores, the lower incomes of females are attributable to the greater incidence of part-time work among this group.[100] This factor cannot explain all of the observed male-female differences in income distribution, however; it does not account, for example, for the severe underrepresentation of females in the very highest income brackets. Furthermore, there is evidence from other sources of intraindustry differences in pay for males and females. For example, an August, 1970 survey of the "women's and misses' coats and suits' industry in New York City (a category accounting for over 12% of the SIC 23 employment in the City) found that the average hourly wage for female production workers was $3.34, compared to $4.40 for males.[101]

We find a similar, though somewhat less pronounced picture of inequality in the data on income distribution by race. Tables 5.8, 5.9, and

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100 The major category of part-time workers in the department store industry consists of sales workers, and, according to a recent study of the industry, more than three-fourths of the sales workers are female. See Charles R. Perry, The Negro in the Department Store Industry, (Philadelphia: U. of Pa. Press, 1971), pp. 20-22.

101 U.S. Department of Labor, Bureau of Labor Statistics, Industry Wage Survey: Women's and Misses' Coats and Suits August, 1970, Bulletin 1728, Table 6.

5.10 show that less than one percent of the blacks in apparel and in GMS, and only 7.5% of those in banking were earning over $10,000 in 1970, compared to about 12% of the whites in apparel and GMS, and 30% in banking. At the lower end of the income distribution, the proportions of blacks earning under $5,000 are 74% in apparel and in GMS and 41% in banking; the corresponding figures for whites are 63% in apparel and GMS and 19% in banking.

Our data on the inequality of income distribution by sex and race in the apparel industry confirm the earlier findings of Brecher. His 1966 data showed that females comprised over 80% of the industry's workforce earning under $4,000, but less than 10% of the workforce earning over $8,000; Negroes comprised close to 20% of the industry's workforce earning under $5,000, but less than ½ of one percent of those earning over $10,000.[102]

Thus far in the chapter we have examined employment-growth and income-distribution data for the three industries; both sets of data suggest that opportunities for upward mobility should be greater in banking than in the other two industries. We have seen, too, that the better-paying positions in each industry are unequally distributed, with whites and males over-represented in terms of their total numbers in the industry, in the high-income ranges, and blacks and females over-represented in the low-income brackets.

"Internal" Promotion

Before proceeding to an investigation of the actual upward mobility

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102 Charles Brecher, Upgrading Blue Collar and Service Workers (Baltimore: John Hopkins University Press, 1972), p. 22.

TABLE 5.8

1970 INCOME DISTRIBUTION BY RACE, APPAREL

Income Class ($1000)	WHITES Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent	BLACKS Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent
0-1	31	43	132	206	9.4	1	5	26	32	9.2
1-2	34	39	121	194	8.9	7	6	12	25	7.2
2-3	66	62	165	293	13.4	12	4	27	43	12.4
3-4	104	85	209	398	18.3	25	24	50	99	28.4
4-5	81	84	110	275	12.6	17	16	26	59	17.0
5-6	73	55	66	194	8.9	10	6	15	31	8.9
6-7	45	29	57	131	6.0	17	4	8	29	8.3
7-8	41	26	26	93	4.3	5	4	5	14	4.0
8-9	30	13	19	62	2.8	4		2	6	1.7
9-10	27	26	13	66	3.0	2	2	3	7	2.0
10-11	22	15	9	46	2.1	1			1	0.3
11-12	12	11	12	35	1.6	1	1		2	0.6
12-13	5	5	12	22	1.0					
13-14	11	9	6	26	1.2					
14-15	11	1	4	16	0.7					
15+	56	32	35	123	5.6					
Total:	649	535	996	2,180	99.8	102	72	174	348	100.1

SOURCE: Social Security Data

TABLE 5.9

1970 INCOME DISTRIBUTION BY RACE,
GENERAL MERCHANDISE STORES

Income Class ($1000)	WHITES					BLACKS				
	Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent	Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent
0-1	2	2	120	124	15.0		1	33	34	18.8
1-2	14	4	108	126	15.3			20	20	11.0
2-3	17	10	77	104	12.6	2	1	20	23	12.7
3-4	25	5	50	80	9.7	5	2	28	35	19.3
4-5	39	4	44	87	10.5	6		16	22	12.2
5-6	29	4	40	73	8.8	8	1	14	23	12.7
6-7	23	3	33	59	7.1	7	1	4	12	6.6
7-8	10	2	19	31	3.8	2		2	4	2.2
8-9	11	2	8	21	2.5	2	1	3	6	3.3
9-10	12	1	11	24	2.9			1	1	0.6
10-11	3		5	8	1.0					
11-12	8	2	7	17	2.1					
12-13	7		5	12	1.5					
13-14	3	1	3	7	0.8	1			1	0.6
14-15	4		2	6	0.7					
15+	24	7	16	47	5.7					
Total	231	47	548	826	100.0	33	7	141	181	100.0

SOURCE: Social Security Data

TABLE 5.10

1970 INCOME DISTRIBUTION BY RACE, BANKING

Income Class ($1000)	WHITES Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent	BLACKS Firm Stayers	Industry Stayers	Industry Entrants	Total	Percent
0-1			13	13	1.2			4	4	1.8
1-2	2	1	27	30	2.7			10	10	4.4
2-3	2	1	31	34	3.1			14	14	6.2
3-4	6	3	35	44	4.0	1		15	16	7.1
4-5	3	1	79	83	7.6			49	49	21.7
5-6	11	6	115	132	12.0	2	1	41	44	19.5
6-7	50	13	99	162	14.8	3	2	30	35	15.5
7-8	33	15	66	114	10.4	3	2	16	21	9.3
8-9	29	12	58	99	9.0	3	2	3	8	3.5
9-10	27	12	23	62	5.7	2		6	8	3.5
10-11	23	12	24	59	5.4	2		4	6	2.7
11-12	22	6	12	40	3.6			3	3	1.3
12-13	20	4	18	42	3.8		2	3	5	2.2
13-14	19	4	5	28	2.6					
14-15	12	1	8	21	1.9					
15+	93	15	26	134	12.2	1		2	3	1.3
Total	352	106	639	1,097	100.0	17	9	200	226	100.0

SOURCE: Social Security Data

patterns of the various demographic groups in the workforce of the three industries, let us focus on one other factor which affects upward mobility: the tendency within each industry to rely on internal promotion to fill better-paying jobs. The extent to which upgrading is a factor in filling the better jobs in each industry is evident in Table 5.11, which shows the percentage of the workforce in each $1000 income bracket in 1970 which was employed in the industry in 1965. Three major conclusions emerge from the data:

(a) a high proportion of the 1970 workforce in each industry had not been employed in the industry five years earlier. Only in apparel was more than half of the industry's 1970 workforce employed in the industry in New York City in 1965. Only about one-third of those employed in banking and GMS in 1970 had five years tenure in their industries. The black workforce in GMS and banking was characterized by especially short industry tenure. A glance back to Tables 5.9 and 5.10 reveals that 141 of the 181 blacks in GMS (77.9%) and 200 of the 226 blacks in banking (88.5%) were new entrants to their industries.

(b) within each industry, a larger percentage of the better-paying positions (than of the low-paying jobs) was filled by workers who had been employed in the industry five years earlier. Between 66% and 80% of those earning $15,000 or more in each industry had been employed in the industry in 1965. The proportions of positions paying between $10,000 and $15,000 which were filled by firm and industry stayers were 70.9% in apparel, 56.9% in GMS, and 62.3% in banking. These figures are of interest, because the

TABLE 5.11

1965-1970 FIRM AND INDUSTRY STAYERS
AS A PROPORTION OF 1970 WORKFORCE BY INCOME CLASS:
APPAREL, GENERAL MERCHANDISE STORE, AND BANKING INDUSTRIES

Income Class ($1000)	Apparel	General Merchandise Stores	Banking
0-1	33.6	3.2	0.0
1-2	39.3	12.3	7.5
2-3	42.9	23.6	6.3
3-4	47.9	32.2	16.7
4-5	59.3	45.0	3.0
5-6	64.0	43.8	11.4
6-7	59.4	47.9	34.5
7-8	71.0	40.0	39.3
8-9	69.1	59.3	43.0
9-10	78.1	52.0	58.6
10-11	80.9	37.5	56.9
11-12	67.6	58.8	65.1
12-13	45.5	58.3	55.3
13-14	76.9	62.5	82.1
14-15	75.0	66.7	61.9
15+	71.5	66.0	79.6
ALL	53.7	31.6	36.6

SOURCE: Social Security Data

greater the proportion of the better-paying positions in an industry which are filled "internally," the more conducive is the industry's setting to upward mobility.

(c) while there are inter-industry differences in the extent to which better positions are staffed by industry "veterans," the majority of the better-paying positions in each industry are filled through intraindustry promotion. More than 70% of the apparel workers earning over $10,000 in 1970 had been employed in the industry in 1965. The corresponding figures for the two other industries are 61.2% for GMS and 69.2% for banking.

Advancement Criteria

Our analysis of the degree to which better-paying positions are filled "internally" has set the stage for the investigation of the upward mobility patterns of workers in the three industries. The focus is on those workers employed in the three industries in 1965, and still employed in New York in 1970. The sample for each industry is divided into three groups: those employed by the same firm in both 1965 and 1970, those who changed firms within the industry over the five-year period, and those who were employed in another industry in 1970. As we did in Chapter Four, we set a standard of an upward move of two or more $1000 income brackets as the criterion for advancement. While this standard is more easily met by higher-income workers than by lower-income workers, our analysis will focus on intraindustry and interindustry comparisons of workers in the same income class, rather than on comparisons of workers in different income classes. The uniform advancement standard is therefore adequate for our purposes.

Advancement Patterns

Table 5.12 shows the percentages of firm stayers, industry (but non-firm) stayers and industry leavers who advanced between 1965 and 1970, for workers employed in each of the three industries in 1965. The data show that upward mobility was far more common in banking than in the other two industries; 84.3% of the firm stayers in banking advanced, compared to 47.6% in GMS, and 40.4% in apparel. Within each 1965 income bracket, the percentage of firm stayers advancing was highest in banking and lowest in apparel. The pattern was similar for industry stayers, with an advancement rate of 85.5% for those in banking, compared to 49.0% in GMS and 43.6% in apparel.

The advancement data for industry leavers reveal that within each (1965) income bracket, the advancement rate was higher for stayers in the banking industry than for leavers. On the other hand, apparel and GMS leavers were more successful in advancing than were those who stayed in these two industries.

In the case of GMS, one reason for this phenomenon may be that for many workers, a move from the industry involved a change from part-time to full-time work. This explanation is suggested by the fact that it is in the lowest income brackets (where GMS workers are most likely to be part-time) that higher proportions of industry leavers than stayers were able to advance; among workers earning $6000 or more in 1965, the proportions of industry leavers advancing were lower than the proportions of firm and industry stayers advancing. Intrafirm and intraindustry opportunities for moving from part-time to full-time GMS work may be limited, as suggested

TABLE 5.12

1965-70 ADVANCEMENT PATTERNS OF WORKERS
EMPLOYED IN THREE NEW YORK CITY INDUSTRIES IN 1965

	PERCENT ADVANCING								
	FIRM STAYERS			INDUSTRY STAYERS			INDUSTRY LEAVERS		
1965 Income Class ($1000)	Apparel	GMS	Banking	Apparel	GMS	Banking	Apparel	GMS	Banking
0-3	35.3	46.4	72.7	46.4	33.3	66.7*	67.2	76.1	68.8
3-6	36.1	38.9	89.1	33.5	56.3	89.9	46.3	72.3	60.3
6-9	53.6	69.4	76.5	54.4	85.7*	82.1	40.7	60.0	65.0
9-14	65.2	66.7	89.1	67.7	100.0*	71.4	90.0	36.4	77.8*
ALL	40.4	47.6	84.3	43.6	49.0	85.5	58.2	71.7	63.6

*Based on fewer than ten observations.

SOURCE: Social Security Data

by a recent study showing an increased reliance on part-time labor in the industry in response to increases in the minimum wage.[103]

Advancement by Sex

The advancement patterns of male and female workers in the three industries are shown in Tables 5.13, 5.14, and 5.15. Turning to Table 5.13, we see that whatever upward movement does occur in the apparel industry, the advancement opportunities are not shared equally by males and females. Among males, 55.3% of the firm stayers, and 57.8% of the industry stayers advanced; the corresponding figures for females were only 32.7% and and 37.2%. The male-female differential is especially pronounced in the $3000-$6000 range, where 54.1% of the male firm stayers and 52.8% of the male industry stayers advanced, compared to only 28.8% of the female firm stayers and 24.2% of the female industry stayers. These findings are in accord with those of Brecher, who observed a higher advancement rate for males than females in the New York City garment industry between 1962 and 1966, with the differential especially significant in the $2000-$6000 range.[104] Brecher pointed out that women are hired primarily as operators, and "... there are no significant avenues for occupational mobility open to women."[105]

In analyzing the GMS data on advancement patterns by sex (Table 5.14), we again find evidence of greater opportunity for males than for females. Overall, 57.3% of the male firm stayers in GMS advanced. compared to only

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103 Perry, pp. 24-25.

104 Brecher, p. 20.

105 Brecher, p. 19.

TABLE 5.13

1965-70 ADVANCEMENT PATTERNS,
WORKERS EMPLOYED IN THE APPAREL INDUSTRY
IN NEW YORK CITY IN 1965, BY SEX

1965 Income Class ($1000)	MALES PERCENT ADVANCING			FEMALES PERCENT ADVANCING		
	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	40.0	60.7	75.7	34.8	44.7	62.4
3-6	54.1	52.8	54.4	28.8	24.2	40.3
6-9	56.0	57.9	47.8	46.2	36.4	0.0*
9-14	64.3	67.9	90.0	75.0*	66.7*	NA
ALL	55.3	57.8	65.0	32.7	37.2	52.9

*Based on fewer than ten observations.

SOURCE: Social Security Data

TABLE 5.14

1965-70 ADVANCEMENT PATTERNS,
WORKERS EMPLOYED IN GENERAL MERCHANDISE STORES
IN NEW YORK CITY IN 1965, BY SEX

	MALES			FEMALES		
	PERCENT ADVANCING			PERCENT ADVANCING		
1965 Income Class ($1000)	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	83.3*	50.0*	81.8	42.9	32.0	74.3
3-6	40.5	83.3*	79.3	38.2	40.0	61.1
6-9	72.4	100.0*	58.8	57.1*	66.7*	66.7*
9-14	58.8	100.0*	36.4	100.0*	NA	NA
ALL	57.3	84.6	71.1	42.3	36.8	72.1

*Based on fewer than ten observations.

SOURCE: Social Security Data

TABLE 5.15

1965-70 ADVANCEMENT PATTERNS,
WORKERS EMPLOYED IN BANKING
IN NEW YORK CITY IN 1965, BY SEX

1965 Income Class ($1000)	MALES PERCENT ADVANCING			FEMALES PERCENT ADVANCING		
	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	75.0*	100.0*	85.7*	71.4*	60.0*	55.6*
3-6	87.3	96.4	76.0	90.2	85.4	52.1
6-9	80.9	90.5	75.0	61.5	57.1*	25.0*
9-14	89.8	71.4*	77.8*	80.0*	NA	NA
ALL	85.0	91.2	77.2	83.1	79.2	50.8

*Based on fewer than ten observations.

SOURCE: Social Security Data

42.3% of the female firm stayers. The lower figure for females is largely attributable to two factors:

(a) the underrepresentation of females in the income brackets above $6000, where advancement rates tend to be high;

(b) the low female advancement rate (42.9%) in the $0-$3000 range, where most of the females under consideration are part-time workers. In the $3000-$6000 range, where a larger percentage of the workers are full-time, there was only a small difference between the proportions of male (40.5%) and female (38.2%) firm stayers advancing.

On the question of advancement opportunity by sex in banking, we saw earlier (Table 5.7) that females are underrepresented in the better-paying jobs in the industry. Table 5.15 shows, however, that among firm stayers in banking, the proportions of males (85.0%) and females (83.1%) advancing were nearly equal. In fact, female firm stayers in the $3000-$6000 range showed a higher advancement rate (90.2%) than their male counterparts (87.3%). The proportion of industry stayers advancing was somewhat higher among males (91.2%) than among females (79.2%); the lower female rate may be due, to some extent, to involuntary mobility within the banking industry.

Advancement by Race

Tables 5.16, 5.17. and 5.18 present the advancement patterns for whites and blacks in the three industries. While the numbers of blacks in the GMS and banking samples are small, the data show a general similarity between the advancement patterns of whites and blacks in the three industries under consideration. Thus, in apparel (Table 5.16), 40.4% of the white firm stayers advanced, compared to 40.2% of the black firm stayers and 41.7% of the black industry stayers. However, this finding of equal advancement

TABLE 5.16

1965-70 ADVANCEMENT PATTERNS,
WORKERS EMPLOYED IN THE APPAREL INDUSTRY
IN NEW YORK CITY IN 1965, BY RACE

1965 Income Class ($1000)	WHITES PERCENT ADVANCING			BLACKS PERCENT ADVANCING		
	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	35.7	45.8	65.9	33.3	50.0	69.7
3-6	34.5	33.2	41.6	43.9	35.3	60.6
6-9	53.8	55.2	44.0	50.0*	0.0*	0.0*
9-14	65.2	70.0	90.0	NA	0.0*	NA
ALL	40.4	43.9	55.5	40.2	41.7	65.3

*Based on fewer than ten observations

SOURCE: Social Security Data

TABLE 5.17

1965-70 ADVANCEMENT PATTERNS,
WORKERS EMPLOYED IN GENERAL MERCHANDISE STORES
IN NEW YORK CITY IN 1965, BY RACE

1965 Income Class ($1000)	WHITES PERCENT ADVANCING			BLACKS PERCENT ADVANCING		
	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	44.3	33.3	78.4	62.5*	33.3*	68.8
3-6	36.5	58.3	70.6	50.0	50.0*	76.9
6-9	72.7	85.7*	60.0	33.3*	NA	NA
9-14	66.7	100.0*	36.4	NA	NA	NA
ALL	47.0	50.0	71.9	51.5	42.9*	71.1

*Based on fewer than ten observations

SOURCE: Social Security Data

TABLE 5.18

1965-70 ADVANCEMENT PATTERNS,
WORKERS EMPLOYED IN BANKING
IN NEW YORK CITY IN 1965, BY RACE

	WHITES			BLACKS		
	PERCENT ADVANCING			PERCENT ADVANCING		
1965 Income Class ($1000)	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	70.0	60.0*	71.4	100.0*	100.0*	50.0*
3-6	88.9	88.5	64.6	91.7	100.0*	25.0*
6-9	76.6	82.1	68.4	75.0*	NA	0.0*
9-14	89.1	71.4*	77.8*	NA	NA	NA
ALL	84.1	84.2	67.3	88.2	100.0*	27.3

*Based on fewer than ten observations

SOURCE: Social Security Data

records for blacks and whites must be accompanied by two considerations:

(a) the data for whites include Puerto Ricans, another minority group heavily represented in the low-income workforce of the apparel industry;

(b) as we saw in Table 5.8, Negroes remain severely underrepresented in the better-paying jobs in the industry. We see, too, in Table 5.16, that there were very few black workers in the sample who were earning over $6000 in the apparel industry in 1965. Thus, while equal proportions of white and black styaers in the industry were able to meet our advancement criterion over the period, blacks still have not been able to move in significant numbers into the higher-paying jobs in the industry.

The data for GMS (Table 5.17) and banking (Table 5.18) are marked by the small number of blacks in the sample, especially in the higher income ranges. The limited GMS data do suggest, however, that blacks, just as whites, were better able to advance if they left the industry. As for banking, until very recently blacks have been severely underrepresented in the industry in New York City; we saw in Table 5.10 that almost 90% of the Negroes in banking in 1970 were new entrants to the industry. The data in Table 5.18 do suggest, however, that for blacks as well as for whites, advancement opportunities were greater for firm and industry stayers than for industry leavers. However, the very low advancement rate for black industry leavers (27.3%) may be attributable in part to involuntary mobility.

Attachment Patterns

The attachment patterns of workers in the three industries appear in Table 5.19. A major finding is that income and attachment are positively

TABLE 5.19

ATTACHMENT PATTERNS OF WORKERS EMPLOYED
IN THREE NEW YORK CITY INDUSTRIES IN 1965

1965 Income Class ($1000)	(%) APPAREL			(%) GMS			(%) BANKING		
	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers	Firm Stayers	Industry Stayers	Industry Leavers
0-3	32.0	39.7	28.3	30.0	11.7	58.3	33.3	18.2	48.5
3-6	49.0	31.8	19.3	66.7	8.5	24.9	50.9	23.9	25.3
6-9	53.7	33.2	13.2	57.1	11.1	31.7	70.6	17.2	12.3
9+	58.1	32.4	9.6	67.3	8.2	24.5	79.3	9.9	10.7
ALL	43.5	35.1	21.4	49.7	10.2	40.1	60.9	19.0	20.1

SOURCE: Social Security Data

related; in apparel and banking, and--with only a minor deviation--in GMS as well, the percentage of firm stayers rises steadily as income increases. Furthermore, among firm leavers, the proportion who remain in the industry also tends to increase along with income; this tendency is seen most clearly in the apparel industry.

The most obvious interindustry difference is the relatively low degree of attachment to GMS; 40.1% of the workers in this industry in 1965 had left by 1970, compared to only 21.4% of those in apparel and 20.1% of those in banking. Even among GMS workers earning over $9000 in 1965, 24.5% were employed in other industries in 1970 (the corresponding figures for apparel and banking were 9.6% and 10.7%)

Another interesting finding is the large amount of intraindustry movement in apparel relative to that observed in the other two industries; 35.1% of the apparel workers were (non-firm) industry stayers, compared to 10.2% of the GMS workers and 19.0% of those in banking. There appear to be two major reasons for this phenomenon:

(a) the exit of many apparel firms from New York City during the period, which forced many workers with industry-specific skills (or, at least, the perception of having industry-specific skills) to look for new jobs;

(b) the much smaller average size of New York City firms in apparel than in GMS or banking: 85.8% of the workers in GMS in New York City in March 1970 and 96.6% of those in banking were employed in units of 100 or more employees, compared to only 22.3% in apparel.[106]

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106 Based on figures in Employment Review, Volume XXIII (November, 1970), p. 46.

Attachment by Sex

The attachment patterns of males and females in the three industries are shown in Tables 5.20, 5.21, and 5.22. In general, females show a greater degree of attachment than do males. This phenomenon is not obvious from a male-female comparison of the overall attachment rates, but it does emerge clearly from a comparison of the attachment patterns of the males and females in the same income ranges. Thus, in apparel, the firm-attachment rate is higher for females than for males in all four income classes; in GMS the female rate is higher in three of the four income ranges. The proportion of industry leavers is smaller for females than for males in all income classes in both apparel and GMS. Only in banking do males exhibit attachment rates as high as those of females.

The degree of female attachment to the apparel industry is especially striking in light of the limited advancement opportunities for females in this industry. Overall, more than 81% of the females in the industry in 1965 were still employed in apparel in 1970; even in the lowest income range (under $3000), almost 80% remained in the industry.

Attachment by Race

Tables 5.23, 5.24, and 5.25 present the attachment data for blacks and whites in the three industries. Again, the samples contain very limited numbers of blacks, especially in the higher income brackets. The data do, however, show somewhat greater attachment among whites than among blacks. Thus, in apparel, the proportions of industry leavers among blacks are 46.8%, 26.6%, and 22.2% in the three lowest income ranges, compared to 23.5%, 17.7%, and 12.8% for whites. Similar patterns emerge from the data on GMS and banking. In the GMS sample, 52.9% of the blacks were industry leavers,

TABLE 5.20

ATTACHMENT PATTERNS,
WORKERS EMPLOYED IN THE APPAREL INDUSTRY
IN NEW YORK CITY IN 1965, BY SEX

1965 Income Class ($1000)	MALES Sample Size	MALES Firm Stayers (%)	MALES Industry Stayers (%)	MALES Industry Leavers (%)	FEMALES Sample Size	FEMALES Firm Stayers (%)	FEMALES Industry Stayers (%)	FEMALES Industry Leavers (%)
0-3	118	16.9	23.7	59.3	572	35.1	43.0	21.9
3-6	227	43.2	31.7	25.1	469	51.8	31.8	16.4
6-9	164	51.2	34.8	14.0	41	63.4	26.8	9.8
9+	126	57.9	31.7	10.3	10	60.0	40.0	
ALL	635	43.3	31.0	25.7	1092	43.6	37.5	18.9

SOURCE: Social Security Data

TABLE 5.21

ATTACHMENT PATTERNS OF WORKERS EMPLOYED
IN GENERAL MERCHANDISE STORES
IN NEW YORK CITY IN 1965, BY SEX

	MALES				FEMALES			
1965 Income Class ($1000)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
0-3	41	14.6	4.9	80.5	189	33.3	13.2	53.4
3-6	72	51.4	8.3	40.3	117	76.1	8.5	15.4
6-9	50	58.0	8.0	34.0	13	53.8	23.1	23.1
9+	44	63.6	9.1	27.3	5	100.0		
ALL	207	48.3	7.7	44.0	324	50.6	11.7	37.7

SOURCE: Social Security Data

TABLE 5.22

ATTACHMENT PATTERNS OF WORKERS
EMPLOYED IN BANKING
IN NEW YORK CITY IN 1965, BY SEX

	MALES				FEMALES			
1965 Income Class ($1000)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
0-3	12	33.3	8.3	58.3	21	33.3	23.8	42.9
3-6	108	50.9	25.9	23.1	181	50.8	22.7	26.5
6-9	126	70.6	16.7	12.7	37	70.3	18.9	10.8
9+	116	78.4	10.3	11.2	5	100.0		
ALL	362	66.0	17.1	16.9	244	53.3	21.7	25.0

SOURCE: Social Security Data

TABLE 5.23

ATTACHMENT PATTERNS OF WORKERS
EMPLOYED IN THE APPAREL INDUSTRY
IN NEW YORK CITY IN 1965, BY RACE

	WHITES				BLACKS			
1965 Income Class ($1000)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
0-3	549	33.2	43.4	23.5	141	27.7	25.5	46.8
3-6	572	49.7	32.7	17.7	124	46.0	27.4	26.6
6-9	196	53.1	34.2	12.8	9	66.7	11.1	22.2
9+	135	58.5	31.9	9.6	1		100.0	
ALL	1452	44.7	36.8	18.5	275	37.1	26.2	36.7

SOURCE: Social Security Data

TABLE 5.24

ATTACHMENT PATTERNS OF WORKERS
EMPLOYED IN GENERAL MERCHANDISE STORES
IN NEW YORK CITY IN 1965, BY RACE

	WHITES				BLACKS			
1965 Income Class ($1000)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
0-3	187	32.6	12.8	54.5	43	18.6	7.0	74.4
3-6	150	69.3	8.0	22.7	39	56.4	10.3	33.3
6-9	60	55.0	11.7	33.3	3	100.0		
9+	49	67.3	8.2	24.5				
ALL	446	51.8	10.5	37.7	85	38.8	8.2	52.9

SOURCE: Social Security Data

TABLE 5.25

ATTACHMENT PATTERNS OF WORKERS
EMPLOYED IN BANKING
IN NEW YORK CITY IN 1965, BY RACE

	WHITES				BLACKS			
1965 Income Class ($1000)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)	Sample Size	Firm Stayers (%)	Industry Stayers (%)	Industry Leavers (%)
0-3	29	34.5	17.2	48.3	4	25.0	25.0	50.0
3-6	261	51.7	23.4	24.9	28	42.9	28.6	28.6
6-9	158	70.3	17.7	12.0	5	80.0		20.0
9+	121	79.3	9.9	10.7				
ALL	569	61.9	18.6	19.5	37	45.9	24.3	29.7

SOURCE: Social Security Data

compared to 37.7% of the whites. In the lowest income bracket (under $3000), only 18.6% of the blacks were firm stayers and 7.0% were industry stayers (the corresponding figures for whites were 32.6% and 12.8%). These figures suggest an extremely high rate of turnover among blacks employed part-time in the industry; apparently, low-income, part-time blacks did not develop a very keen liking for the "counter" culture of the general merchandise store industry.

CHAPTER VI

SUMMARY OF MAJOR FINDINGS, POLICY IMPLICATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

This chapter begins with some discussion of our major findings. We then present some policy implications of these findings, followed by suggestions for further research.

Attachment by Demographic Group: Females

The most striking finding emerging from our analysis of the attachment patterns of the various demographic groups within the low-income workforce is the high degree of attachment exhibited by females. We saw in Tables 4.1 and 4.2 that the firm-attachment rates for females in the New York and national samples were 53.6%and 53.7%, respectively; the corresponding figures for males were 41.7% and 38.5%. As explained earlier, the female attachment rates are somewhat inflated by the exclusion from the sample of many females who left the workforce between 1965 and 1970. In addition to their frequent labor-force withdrawals for family reasons, females have an observed tendency to withdraw from the labor force (and thus from our sample) in order to avoid possible involuntary movement. Thus, a Bureau of Labor Statistics study of job mobility has reported, "...women who lose their jobs often leave the job market if a satisfactory reemployment opportunity does not turn up. Some women also take a longer time to look for a new job.[107]

The high female attachment rates may reflect male-female differences not only in involuntary mobility behavior, but also in voluntary mobility.

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107 Gertrude Bancroft and Stuart Garfinkle, "Job Mobility in 1961," Bureau of Labor Statistics Special Labor Force Report #35, p. 7.

Perhaps females, who are normally secondary wage earners, do not feel as great an urge as do males to increase their earnings through interfirm movement. This possibliity is supported by our national-sample finding that black females, who are primary earners more often than are white females,[108] showed a lower rate of firm attachment (49.6%) than did white female (53.9%).

Because of a lack of attachment data by age-sex group, we have not been able to consider the age composition of the male and female samples in our analysis of male-female differentials in attachment. Since the sample is limited to workers employed in both 1965 and 1970, and since young females move in and out of the workforce with greater frequency than do older females, it is possible that one reason for the high observed female attachment rates is that the sample contains a relatively large number of older women, who are less prone to make interemployer moves than are younger women. This question can be resolved, of course, through a future analysis of attachment data by age-sex group.

In any case, we remain with our finding of high female attachment rates. The finding is especially noteworthy because the group under consideration is a low-income sample and, as we saw in our analysis of three industries in Chapter Five, attachment rises with income class. Furthermore, as we saw in the case of the apparel industry, females exhibit a high degree of attachment even in the face of limited internal advancement opportunity.

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[108] According to a recent article, one in every three Negro families with children is headed by a woman, compared to one in every ten white families with children. See Robert L. Stein, "The Economic Status of Families Headed by Women," Monthly Labor Review, Vol. XCIII (December, 1970), p. 5.

Attachment Patterns by Race

The most surprising finding in the national sample is that black males exhibited greater attachment than white males. The firm-attachment rate was 40.3% for black males, compared to only 38.2% among white males; 45.4% of the white males changed industries, compared to 44% of the black males. As noted in Chapter Two, other studies have generally found black males to be more mobile than white males, and the recent work of Herbert Parnes suggests that this is the result of a greater degree of voluntary, as well as involuntary movement on the part of the black males. It is possible that the age composition of the white and black groups within the Social Security sample may contain part of the explanation for our finding of higher attachment among black males than among white males. Unfortunately, we have no information on the age composition of the race-sex groups in the sample.

Two other factors may explain the difference between our finding and those of previous studies on the relative mobility rates of black and white males:

(a) the black mobility rate may be artificially reduced by the exclusion from the sample of those males who left the workforce between 1965 and 1970; the significance of this possibliity is suggested by a previous finding that even when such factors as age and education are held constant, black prime-age males have a lower labor force participation rate than do their white counterparts.[109]

(b) our finding is limited to workers in one particular income

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109 Herbert S. Parnes, "Labor Force and Labor Markets," in Woodrow L. Ginsburg, et al, A Review of Industrial Relations Research, Vol. I (Madison, Wisconsin: Industrial Relations Research Association, 1970), p. 23.

bracket, while other studies included workers at all income levels.

This latter consideration prompts us to suggest a hypothesis to explain the discrepancy between our finding on the relative mobility of black and white males, and the findings of earlier studies. Perhaps mobility, like consumption, is a function of relative income--i.e. of one's income level relative to some "average" among one's peer group. Accordingly, black males in a given income bracket would have higher relative incomes (relative to their peers--other black males) then would white males in the same income bracket. If the theory is correct, then black males might have a higher overall mobility rate, but in any dollar-income category, white males would be more mobile than blacks. The hypothesis is an interesting one, and one deserving of some investigation; such an investigation, however, is beyond the scope of this study.

Attachment by Age

Our finding that increasing age is accompanied by a greater degree of attachment is consistent with results of earlier studies. The findings of this study support Gallaway's suggestion that "willingness to venture into new job situations grows weaker" as one ages.[110]

Advancement Patterns

In analyzing advancement data for the various demographic groups, our major findings were:

(a) the similar advancement rates for white and black stayers;

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110 Lowell E. Gallaway, Interindustry Labor Mobility in the United States 1957 to 1960, U.S. Department of Health, Education, and Welfare, Social Security Administration, Office of Research and Statistics, Research Report No. 18 (Washington: U.S. Government Printing Office, 1967), p. 61.

(b) the lower advancement rates for black movers than for white movers, reflecting the greater amount of involuntary (or, perhaps, economically irrational) movement among the former group;

(c) the lower advancement rates for females than for males.

Our finding of similar advancement rates for white and black stayers must be modified by two considerations:

(1) The finding is based on an arbitrary advancement criterion of a move of two or more $1000 income brackets. It is conceivable that had we set a more demanding criterion for advancement--perhaps a jump of three income brackets-- or, had we used a measure of the "amount" of earnings increase, the data might have shown whites to be more successful in advancing than blacks. However, our standard of a jump of two $1000 brackets seems sufficiently representative of advancement for our purposes.

(2) It is possible that because of past discrimination, black low-income workers are of superior caliber to white low-income workers and, therefore, in the absence of any current racial discrimination, the blacks should display higher advancement rates. David Taylor has made this point with respect to wage rates:

> A(n)...indication that racial discrimination affects a labor market is that when whites and Negroes are receiving the same wage rate, the Negroes will be of higher relative quality. Since some employers refuse to hire Negroes no matter what their qualifications are, nondiscriminators can acquire Negro employees of higher quality than white employees at a given wage.[111]

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[111] David P. Taylor, "Discrimination and Occupational Wage Differences in the Market for Unskilled Labor," Industrial and Labor Relations Review, Vol. XXI (April, 1968), p. 376.

Effects of Employment Growth and Firm Size

Our findings are inconclusive on the effects of employment growth and firm size on attachment and advancement. In general, though, the evidence suggests that industry growth has a negative effect on attachment and a positive effect on advancement. The effects of firm size on attachment were mixed; the variable seemed to have a positive, though not always significant, effect on advancement.

The finding of a negative relationship between employment growth and industry attachment is a surprising one. An explanation, however, may lie in an argument advanced by Burton and Parker, in an article on worker mobility. Burton and Parker hypothesized an inverse relationship between an industry's layoff rate and its rate of voluntary quits, because "...workers who see many of their fellow employees being laid off will conclude that their opportunities in the market place are limited."[112] An analogous argument may explain the inverse relationship we have observed between employment growth and industry attachment. Perhaps rapid growth in an industry generates movement out of the industry by raising workers' perceptions of job prospects elsewhere. The converse of the argument is most applicable in New York City, where empolyment shrank in the manufacturing industries whose attachment rates, we found, varied inversely with rate of industry growth. Perhaps attachment was strongest to those industries where employment shrank most rapidly because workers remaining in those industries concluded that alternative employment opportunities

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112 John F. Burton, Jr. and John E. Parker, "Interindustry Variations in Voluntary Labor Mobility," Industrial and Labor Relations Review, Vol. XXII (January, 1969), p. 212.

were limited.[113]

Clearly, more research is needed on the effects of employment growth and firm size on attachment and advancement. For example, our analysis of the effects of firm size has been an interindustry analysis; a more interesting type of analysis would focus on the relative attachment and advancement rates of workers in small and large firms within the same industry. Unfortunately, such an analysis is not possible using Social Security data. As William Johnson has written:

> The Social Security Administration warns against relying too heavily on employer size. This statistic was obtained by asking each employer, when he initially filled out forms for the Administration, to indicate the number of employees he then had on his payroll. No effort has been made to bring this estimate up to date following the initial report. In our work, we have ignored it and urge others to do do also.[114]

Advancement Opportunity as a Cause of Attachment

The results of our analysis of attachment as a function of advancement opportunity were mixed. This question is an interesting one, certainly deserving more analysis. Perhaps the issue should be explored using a lagged dependent variable; that is, we should test the relationship between attachment to an industry and the level of advancement within the industry

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113 A very recent article provides further support for this hypothesis. The study found that quit rates in manufacturing industries varied directly with the rate of new hires, and concluded that "...a worker draws his clues to the labor market situation...form the situtaion that exists in the plant and industry in which he is employed." See Paul A. Armknecht and John F. Early, "Quit Rates in Manufacturing: A Study of their Causes," Monthly Labor Review, Vol. XCV (November, 1972), p. 36.

114 William Johnson, Changing Patterns of Employment in the New York Metropolitan Area, (New York: Rand, 1971), p. 53.

in the recent past. Another interesting question would focus on the relative strength of the relationship between advancement opportunity and attachment for workers at different income levels. In any event, the Social Security data are well suited for further exploration of this issue.

Policy Implications

As mentioned in Chapter One, one of the purposes of this study is to help provide direction for Federal upgrading programs in general, and for the Training Incentive Payments Program (TIPP) in particular. TIPP is a demonstration project through which the Manpower Administration of the U.S. Labor Department is attempting to encourage private employers in New York City to raise the wages of their low-income workers. To accomplish this goal, the program employs financial incentives and various forms of technical assistance; a unique feature of the program is its use of cost-benefit accounting systems to demonstrate to employers the profitability of increased investment in low-level workers.

In a recent (September 28, 1971) letter to the Secretary of Labor, the National Manpower Advisory Committee listed five principal justifications for Federal intervention in the area of upgrading. Two of these justifications are of direct concern to this study:

> (1) To broaden access of minority groups to better jobs. In the absence of Federal assistance they might not have an equal chance to be promoted.
>
> (2) Federal support would make possible experimental and developmental efforts aimed at helping employers re-design their occupational structures with an aim of increasing the opportunities for upgrading.[115]

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115 U.S. Department of Labor, Manpower Administration, Manpower Advice for Government, National Manpower Advisory Committee Letters to the Secretaries of Labor and of Health, Education, and Welfare 1962-1971, p. 137.

With reference to the Advisory Committee's first point, our data show that low-income blacks are as successful in advancing as are low-income whites. Females, however, have not been as successful in achieving internal upward mobility as males have been. The low internal advancement rates are especially significant in light of the high female attachment rates. The fact that low-income females remaining in the workforce exhibit a general reluctance to change employers suggests that (in the absence of any change in labor-market behavior on the part of this group) government-sponsored efforts to upgrade low-income female workers should be directed at advancement within their current internal labor market. Alternatively, programs designed to improve the general labor market position of low-income females should include efforts to overcome their relative immobility.

Our analysis of three industries in New York City showed an under-representation of both blacks and females in the better-paying jobs. In the case of general merchandise stores and banking, the underrepresentation of blacks in the higher income brackets reflects not their failure to advance internally, but rather their long-standing inability to gain access to the internal labor markets. This observation is evidenced by the high proportions of new industry entrants among the blacks in GMS and banking in 1970. More current research is needed on the advancement patterns of these newly hired blacks and their white counterparts.

Our research on the apparel industry shows a low overall degree of internal advancement, with the advancement opportunities especially limited for women. Our findings of high female attachment and limited female advancement in apparel challenge a sanguine observation recently made by two writers:

> Unions have generally shown little interest in upgrading programs or job restructuring, either because they are misreading the desires of their membership, or because the average worker is not too concerned about his chances of moving up. The picture varies from industry to industry...In the case of apparel, the largely female work force has only peripheral job attachments and so problably exhibits more concern over wages and hours than advancement opportunities.[116]

As for the Advisory Committee's second point, proposing efforts to redesign occupational structures in the hope of increasing upgrading opportunity, our analysis of the GMS and apparel industries shows that advancement opportunity is , in fact, restricted by the small numbers of better-paying positions in these industries. Given the technology of the two industries, however, as well as the widespread use of part-time workers in GMS, it is difficult to envision a significant enhancement of advancement opportunity resulting from job restructuring in these two industries.

Suggestions for Further Research

The Social Security data can be used for a good deal of further research on attachment and advancement. Still to be analyzed are the attachment and advancement patterns by age-sex and age-race-sex group. Also needed is more work on the similarities and the differences between attachment and advancement patterns of workers in different income classes. Finally, much analysis is still needed on the determinants of intrafirm and intraindustry advancement; the role of the degree of unionization, among other factors, has not received adequate attention.

More research is needed, too, on the effects of an industry's income

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116 Sar A. Levitan and Robert Taggart III, "Has the Blue-Collar Worker's Position Worsened?" Monthly Labor Review, Vol. XCIV (September, 1971), p. 28.

level on the attachment and advancement patterns of workers in the industry. One very interesting approach, which is feasible with the Social Security data, would be to test the effects on worker advancement of the proportion of the industry's workforce which is in the next highest income bracket (for example, for each industry, calculate the percentage of the workforce earning between $5000 and $7000 in 1970, and test the effects of this variable on the 1965-70 advancement rate of low-income stayers within the industry).

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